

14
SIXTEENTH ANNUAL REPORT

OF THE

ALUMNI ASSOCIATION,

WITH THE EXERCISES OF THE

FIFTY-NINTH COMMENCEMENT

OF THE

Philadelphia College of Pharmacy.

PHILADELPHIA.

1880.

Officers of the Association,

FOR 1880 AND 1881.

PRESIDENT.

HUGH CAMPBELL, N. W. cor. 21st and Locust Sts.

FIRST VICE-PRESIDENT.

WILLIAM W. MOORHEAD, 818 Arch St.

SECOND VICE-PRESIDENT.

HENRY TRIMBLE, N. W. cor. 5th and Callowhill Sts.

RECORDING SECRETARY.

WM. E. KREWSON, N. E. cor. 8th St. and Montgomery Av.

CORRESPONDING SECRETARY.

L. E. SAYRE, S. W. cor. 18th and Market Sts.

TREASURER.

EDWARD C. JONES, S. E. cor. 15th and Market Sts.

EXECUTIVE BOARD.

R. V. MATTISON, M. D. (1 year), 332 N. Front St.
JOHN A. MARTIN (1 year), 1084 Frankford Ave.
ADOLPH W. MILLER, M. D. (2 years), 860 N. 5th St.
WALLACE PROCTER (2 years), 900 Lombard St.
JOHN E. COOK (3 years), 1224 Wood St.
JACOB S. BEETEM (3 years), 941 Spruce St.

TRUSTEE OF SINKING FUND.

THOMAS S. WIEGAND, 145 N. 10th St.

ORATOR FOR 1881.

GEORGE W. KENNEDY, of Pottsville, Pa.

PROCEEDINGS

OF THE

SIXTEENTH ANNUAL MEETING.

The Sixteenth Annual Meeting of the Alumni Association was held in the College Hall, Monday afternoon, March 15th, 1880.

The meeting was called to order by the President, Wm. E. Krewson, at half past two o'clock, P. M., the following members being present :

T. S. Wiegand, - - - Class 1844	Howard B. French, - - - Class 1871
Charles Bullock, - - - " 1847	C. L. Mitchell, M. D., " 1872
Evan T. Ellis, - - - " 1847	Wallace Procter, - - - " 1872
J. L. Lemberger, - - - " 1854	John E. Cook, - - - " 1873
W. C. Bakes, - - - " 1855	Richard V. Mattison, M. D., " 1873
Charles W. Hancock, - - - " 1857	Henry S. Wellcome, - - - " 1874
Adolph W. Miller, M. D., " 1863	George W. Shamalia, - - - " 1875
Edward C. Jones, - - - " 1864	Henry Trimble, - - - " 1876
H. Edward Wendel, - - - " 1865	David W. Ross, - - - " 1877
Hugh Campbell, - - - " 1866	William A. Ball, - - - " 1877
L. E. Sayre, - - - " 1866	Louis Trupp, - - - " 1877
Chas. A. Weideman, M. D., " 1867	Jacob S. Beetem, - - - " 1878
George W. Kennedy, - - - " 1869	Edward Peat, - - - " 1878
William W. Moorhead, - - - " 1869	Roland D. Jones, - - - " 1879
Wm. E. Krewson, - - - " 1869	

In the absence of the Secretary, Dr. F. M. Murray, Mr. Wm. A. Ball was appointed Secretary *pro tem*.

The minutes of the last Annual Meeting, and also those of the Executive Board, were read and approved.

On motion, the reading of the minutes of the Social Meetings were omitted.

The President then read his Annual Report, which is as follows :

GENTLEMEN OF THE ALUMNI:—

Another year has passed away and we are again permitted, by a kind providence, to assemble in these halls to participate in our Sixteenth Annual Greeting.

During the year just closed, but three of our active members have been called away by death; we can therefore look back over the past year with truly grateful hearts, and thank our Heavenly Father for his care over us as an Association.

Since our last annual meeting the Executive Board has held its four regular, and two special meetings, the minutes of which have been read in your hearing; they show that the interests of the Association have been carefully guarded, and that the attendance has been good, most of the members of the Board being present at all the meetings.

There have also been held five social meetings during the lecture season, for the benefit of the students, but I am sorry to report that the attendance and interest manifested by them have not been as good as in former years.

This year the members refrained from producing original papers or themes for discussion, leaving that for the students, thereby hoping to give them more interest in the proceedings. In this we fail, for the reason, I think, that the young men have enough to do if they faithfully study up the lectures and prepare for the final examination. I would therefore respectfully suggest that at our future social meetings the members of the Association take entire charge of them, and have a course of lectures the first half hour of the meetings, on subjects which will be of practical use to the young men. Then give them a quiz on the different branches taught, and follow by giving them specimens, as we have been in the habit of doing.

The publication of the next Annual Report has been provided for, as usual, by the retiring Executive Board. The number to be printed will be 2500, the same as last year, and will contain a list of all the active members of the Association; and, what is of interest financially, there will be more than sufficient to pay for the publishing, from advertisements.

The Seventh Annual Report being out of print, the Executive Board ordered 500 copies to be re-printed, provided that the funds of the Association were not used for that purpose. A committee of four was appointed by the Board, consisting of the President, Secretary, Treasurer, and T. S. Wiegand, to solicit subscriptions, and it is with feelings of pleasure that I report that the committee secured sufficient money to have the report re-printed, and it is now in our case.

A committee of three was appointed on deceased members, as per motion at our last annual meeting, consisting of C. W. Hancock, J. A. Parker, and C. J. Biddle, who will report in due time, and I think it advisable to appoint a like committee this year for the same purpose.

According to a motion made at our last annual meeting, a committee of three was appointed, consisting of L. E. Sayre, William McIntyre, and Edwin M. Boring, from the Association at large, to take into consideration the bestowal of prizes, and report at a special meeting of the Association to be called for that purpose; but owing to a misunderstanding the committee was not appointed until it was too late for them to confer, and call the members together. This committee should be continued, I think, for another year.

Our Association now numbers 480 active members. I am sorry to report that our active membership has not increased during the past year as we had expected, but 22 have taken out certificates of membership, although the Class of '78 and '79 graduated more members than any of its predecessors, numbering 118 members. I desire to call the attention of the Association to this important matter, and see if something can be done to stimulate or induce the graduates of our College to become active members of the Association.

It is gratifying to report that our Association, financially, is in a good condition, and that our worthy Treasurer, Edward C. Jones, who has served the Association so faithfully for several years, will report a good balance in the treasury after all expenses are paid, all of which is due in a great measure to his energy and perseverance.

A glance at the history of our College for the year passed must not be forgotten. The regular course of lectures have been carried on as usual. The classes are larger than ever before, numbering 353 students.

Altogether the condition and prospects of our Association are in every way satisfactory, and we should all feel highly encouraged and endeavor to promote its usefulness and press forward the good work so well begun.

In retiring from my official position, allow me to conclude my remarks by expressing my sincere thanks to the members of the Association, for the honor you have conferred upon me, and I assure you that I have endeavored to fill the position and discharge the duties of the office, to the best of my ability.

Especially are my thanks due to the members of the Executive Board, who have always extended to me their uniform courtesy and consideration, during my term of office. Permit me to express the hope that my successor may always find the duties of the office as pleasant as I have found them, and that the Association may continue to increase in usefulness and power for good, during his administration.

The appointment of a Committee to nominate officers for the coming year being next in order, the President appointed one from each of the following classes: '47, '54, '57, '64, '65, '66, '69, '72, '73, '74, '75, '76, '77, '78, who, after consultation, reported the following gentlemen as nominees: President, Hugh Campbell, class of '66; 1st Vice-President, Wm. W. Moorhead, class of '69; 2d Vice-President, Henry Trimble, class of '76; Recording Secretary, Wm. E. Krewson, class of '69; Corresponding Secretary, L. E. Sayre, class of '66; Treasurer, Edward C. Jones, class of '64. To fill vacancies in the Executive Board, John E. Cook, class of '73, and Jacob S. Beetem, class of '78; Trustee of Sinking Fund, Thos. S. Wiegand, class of '44; Orator, George W. Kennedy, class of '69, of Pottsville, Pa.

On motion, Mr. W. A. Ball, Secretary *pro tem*, was directed to deposit an affirmative ballot, which he did, after which the President declared the nominees unanimously elected for the year 1880 and '81.

The Treasurer's Report was then read as follows :
Edward C. Jones, Treasurer in account with

THE ALUMNI ASSOCIATION OF THE PHILADELPHIA COLLEGE OF PHARMACY

1879, 3d month, 12th, To Balance on Hand at Last Report, . . .	\$166 44
“ 22 Certificates at \$5,	110 00
“ Balance Received from Pub. Committee,	50 00
“ Donations for Reprinting 7th Annual Report,	20 54
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	\$346 98
1879. CR.	
By Cash Paid for Filling up Certificates,	\$25 95
“ “ “ “ Printing,	21 90
“ “ “ “ Reprinting 7th Annual Report,	25 00
“ “ “ “ Sundry Expenses,	80
“ “ “ “ Sending out 15th Annual Report,	14 04
“ “ “ “ Treasurer's Expenses,	14 45
“ “ “ “ Blank Certificates,	16 50
	<hr/>
	\$118 64
1880, 3d month, 15th, By Balance on Hand,	228 34
	<hr/>
	\$346 98

An Auditing Committee was then appointed consisting of R. V. Mattison, W. W. Moorhead and Geo. W. Kennedy, to audit the account, which they reported correct. On motion, the report was received and the Committee discharged.

The Treasurer also reported that during the past year the following gentlemen had taken out their certificates and become active members :

Alonzo Robbins, - - - Class 1855	Henry G. Smith, - - - Class 1879
David Costelo, - - - “ 1879	Ernest Fruh - - - “ 1879
Moses S. Simpson, - - - “ 1879	A. G. Frey, - - - “ 1879
Ernst P. Raab, - - - “ 1879	R. H. Vansant, - - - “ 1879
John H. Lock, - - - “ 1879	William S. Mitchell, - - - “ 1875
Roland D. Jones, - - - “ 1879	Joe Jacobs, - - - “ 1879
Levi Fahnestock, - - - “ 1879	Alex. B. Levi, - - - “ 1879
C. W. Troll, . - - - “ 1879	E. A. Alleman, - - - “ 1879
Curtis W. Turner, - - - “ 1879	Jacob S. Beetem, - - - “ 1878
Émil Jungman, - - - “ 1879	Charles J. Siglinger, - - - “ 1879
John A. Martin, - - - “ 1877	Fred. T. Williams, - - - “ 1879

The Chairman of the Committee on Deceased Members then reported that three of our members had died during the year: Mr. Charles F. Bolton, of Class '71; F. V. Heydenreich, of Class '58, and S. T. Jones, of Class '64. On motion, the report was referred back to the committee to procure further information in reference to the death of Mr. S. T. Jones, who died yesterday, and to have the same published in our report.

The President's suggestions in his report, in reference to the social meetings, were then taken up.

Dr. R. V. Mattison spoke of the social meetings during the past winter, and hoped that some instructions would be given to the Executive Board for their guidance in carrying on the social meetings next winter.

Mr. L. E. Sayre spoke on the subject of writing papers suggesting subjects that would be of interest to the students, and that would increase their desire to further investigate them. Dr. Charles L. Mitchell concurred with the remarks of the above speaker, and argued in regard to members writing papers as a stimulus to students, who, on hearing a subject opened, would continue their further investigation of the same.

Mr. George W. Kennedy asked for information in regard to the attendance of the last social meetings.

Mr. Henry S. Wellcome, of New York, hoped that these meetings would be continued during the next winter, as he thought they were of great aid to the students.

After further discussion on the subject participated in by Mr. J. L. Lemberger, and several other members, it was moved and seconded to refer the whole subject to the Executive Board, they to devise means for continuing the social meetings next winter, which was carried unanimously.

It was moved that the Committee on Prizes be continued, which was carried.

(The Committee are L. E. Sayre, Chairman, E. M. Boring, and William McIntyre.)

A motion was made that a committee of three on deceased members be appointed by the President elect, which was carried.

There being no further business before the Association, it then adjourned at 4 P. M.

After adjournment the members proceeded in a body to the reception of the Graduating Class, in the lecture room above.

WILLIAM A. BALL,

Secretary *pro tem.*

THE SIXTEENTH
ANNUAL RECEPTION

To the Graduating Class,

BY THE

ALUMNI ASSOCIATION OF THE PHILADELPHIA COLLEGE OF
PHARMACY,

*Was held Monday afternoon, March 15th, 1880, at the
College Hall, 145 N. Tenth Street.*

The President, William E. Krewson, called the meeting to order at 4 P. M., with the following introductory remarks :

LADIES AND GENTLEMEN :—

We have assembled here this afternoon to participate in the Sixteenth Annual Reception to the Fifty-ninth Graduating Class of the Philadelphia College of Pharmacy. On behalf of the Alumni Association I bid you welcome to these halls.

Our object of thus assembling is to endeavor to cement the ties more firmly which shall bind us as fellow Alumni, and to promote that fellowship and good feeling which should always exist between graduates of the same College.

To those of you who may not be familiar with the history of our College, permit me to say that it is the oldest institution of the kind on this continent, and that it numbers more than 1600 graduates, some of whom are our best citizens, occupying high positions, not only as Pharmacists, but in other professions, as Surgeons and Physicians, at the Bar, and in the Pulpit. Its diploma can be found, not only in every State of our Union, but in almost every city and town of importance in our own land, as well as in foreign countries. The Class of this year, 1879-80, numbered more than any of its predecessors, and has representatives from twenty-nine States and Territories, and from England and Germany.

Its fair name has never been tarnished, and our *Alma Mater* stands to-day at the head of all similar institutions in this country or the world.

Is it any wonder then that the young gentlemen of the Graduating Class are so jubilant to-day, and that we should thus assemble to congratulate them on the high honor which will so soon be bestowed upon them, the title of Ph. G. of the Philadelphia College of Pharmacy.

The Secretary, *pro tem*, then announced the names of the Graduating Class, who were then welcomed into the ranks of the Alumni Association by the President, as follows :

GENTLEMEN OF THE GRADUATING CLASS :—

As President of the Alumni Association it becomes my pleasant duty to welcome you into our ranks as fellow Alumni.

According to our Constitution all graduates of the Philadelphia College of Pharmacy are admitted as members of the Alumni Association.

You have successfully passed the final examination by the Professors and the Trustees of the College, after four long years of toilsome studies in the store and at the lectures. Many of you have come from far distant homes, and have endured trials and privations which were, perhaps, known to no one but yourselves, but happily you have overcome all of these obstacles by your diligence and perseverance, and are now on the eve of receiving your reward.

In a few hours more you will be scattered over this broad land, and the Class of 1880, as an organization, will be no more ; but remember you have duties to perform not only to yourselves, but to those who shall take your places. Those of you who will go to your distant homes, do not forget your *Alma Mater*, but endeavor to inculcate the principles which you have been taught by your preceptors and the faculty of this institution, so that the influence of our College and the Association may be known and felt far and wide. To those of you who shall make our city your future home, remember that you have privileges and opportunities which your fellow-graduates, from a distance, do not enjoy. You have this hall, with its valuable collection of specimens, library, and its practical laboratory, together with the Pharmaceutical and College meetings. Do not confine yourselves then to your stores alone, but endeavor to exert an influence on those about you in promoting the advancement of our profession.

In concluding my remarks to you, I should be recreant to my trust as presiding officer as this body, if I did not urge upon you all the importance of immediately making yourselves active members of this Association by taking out its certificate, and assist by your presence and influence in the social meetings of next winter. Remember that the Association was always ready to assist you during your College course, in a higher attainment of your studies.

Gentlemen of the Class :—The time has come for me to bid you farewell. Accept my congratulations, as well as those of the Alumni Association. We may never meet again in these halls, but I trust that we may all meet above, and may God, in His wisdom, ever guide and protect you and yours, is my earnest desire. Again, I say, farewell.

The President, then continuing, said :

As has been our usual custom in former years, so this year we present our usual prize to the student who has received the highest general average of the class.

Mr. George H. Colton, of Springfield, Mass., having attained this high average, will please come forward and receive this beautiful medal.

Mr. Colton then came forward, and was awarded the Alumni Gold Medal by the President, in the following words :

Mr. George Havens Colton, it gives me great pleasure to present to you, the fortunate competitor, this gold medal, the highest prize offered by our Association, to the student who receives the highest average in the final examination. You have well earned this token of our appreciation, and I trust that it may stimulate you to further exertion in the cause of Pharmacy, and that the Association shall never have cause to regret the bestowal of it upon you. Accept it then with my congratulations as the representative of the Association, and remember that, not only the eyes of your fellow-graduates are upon you, but the entire Pharmaceutical world.

Mr. Colton accepted the medal and bowed his acknowledgments.

The President then introduced the orator of the occasion as follows :—

LADIES AND GENTLEMEN :

I now have the honor, as well as the pleasure, of introducing to you, the orator of the occasion, Joseph L. Lemberger, of Lebanon, Pa., a graduate of this College, of the Class of 1854, and an active member of the Association, who will deliver the Annual Address.

MR. PRESIDENT, HONORED PROFESSORS, LADIES AND GENTLEMEN :

In appearing before you on this occasion, I feel very sure that I could be charged with recreancy to my sense of gratitude, did I not acknowledge with honest pride the distinguished honor of having been chosen as the speaker for this interesting anniversary gathering. Having accepted this trust, and in casting about for a theme suitable, for something, however incompletely it may be treated, may yet be suggestive to your minds and mine, of some after-thoughts which, like the beautiful sunset at the close of a sweltering mid-summer day, shall be more pleasing and rapturous, than the mid-day's radiance of that same celestial orb.

We are here upon a very practical occasion, having met to welcome, with becoming notice, a class of gentlemen who, by a well-earned distinction as masters of their art, are to be received into our fraternity, so jealous of its existence as to require the hard work now necessary to qualify for this fraternal fellowship.

The theme with which I task your indulgence for a short time is :

“ Personal Responsibility ; or Be Faithful to Your Trust.”

This theme, I have concluded, is eminently suited to the occasion, as we receive the Class of 1879-80, who are upon the eve of accepting a new trust, the custody of which, though well earned, it is true, is a most important one, notwithstanding. New trusts beget new responsibilities, and you will all agree with me that responsibility begins very early. The boy or girl just emerging, as it were, from the babyhood of life, and entering into the activity of the school-day period, are already entrusted with a measure of parental confidence in their ability to improve the opportunities with which they are favored, and which some of us too lightly esteemed, and not only we, but the most enthusiastic votary in pursuit of knowledge, failed rightly to appreciate. As years are added, new responsibilities accrue. The man fitted for the several stations in professional, mechanical or commercial life ; the

woman for the equally responsible post of domestic or household—or, if you please, professional cares; but at every stage responsibilities do accumulate, and we are their custodian for the time and the age in which we live.

Can the conscientious person be other than reminded that the entire mission of life is not a success unless we are faithful to our trust?

Personal responsibility is a theme of such an individual character that a modest man very naturally enters upon its contemplation with awe and modesty. With awe, because of a solemn admonition we feel lest our own part in life's work be not well performed; with modesty, lest we be tempted to soar beyond our sphere—be unlike ourselves and false to nature. We have but to glance about us in our daily intercourse, note events as they transpire, witness the successes and failures in life, the aborting influences of fashion and the foibles of the times, the mockery at justice, the connivance with fraud, the damaging results of associations wrongly formed, the multitudinous forms of evil that assail our youth on the one hand, and the integrity of purpose, the conscientious desires, hallowed emulations, upright ambition of the sincerely good on the other hand. We have, I say, but to note and remember these things, to be inspired with our theme.

Personal responsibility is not limited by any physical boundary lines, from the cradle to the grave, as a stern monitor in every sphere, from the humblest servant of our common Creator, to the occupant of the most exalted station within the gift of His providence, it greets us either to encourage in deeds of noble purpose, or lash us with the scourge of ignoble remorse.

Look with me at the career of the young man of fixed principles and noble aspirations; follow him to the end of life's journey; he will be found battling with its realities, valuing his talent, availing himself of every opportunity, appreciative of privileges, so that when that journey is completed and the record made, we find that such an example is worthy of our imitation. The tempestuous sea of life over which he traverses has for every shoal a beacon amidst the many dangers that threaten shipwreck to his bark, for the chart that guides him has no uncertain lines. He lives with a consciousness of the fact, feeling individual responsibility resting on him, and what he does must be well done, or life is a failure viewed from so exalted a standpoint.

We are, alas, not without plenty of illustrations of the opposite features in this life experience.

The journals of the day herald very quickly every case of moral turpitude, in high or low life, this want of fealty to the principles just cited. Even a casual observer only must often have been impressed with this fact. The heart almost sickens at the too frequent lack of this principle, as we hear the oft-repeated testimony that a former trusty one has compromised his integrity, and instead of making his employer's interests his primal care, makes everything subservient to personal ends, invariably followed by the unwelcome light of truth and fact, revealing his recreancy; and that trusted one of former days betraying confidence freely reposed in him, must bear the consequent ruin with all the good ever possessed, character and reputation lost and the future for time and eternity in jeopardy, almost without a remedy.

This picture is not over-colored; indeed the shades are very dimly made, for your memory can recall many subjects that will fully justify the assumed position. How truly has one of the poets written:

“Were some great ship all out of stores,
When half way o’er the sea ;
Fit emblem of too many lives,
Such vessel doomed would be.”

We often meet, in our experiences, with that class of individuals, creatures that profess to have a very high regard for morality. We will presume such to be what are termed the “high moralists” of the day. Scan them closely, weigh them on the scales adjusted by the golden rule, and you will find that, because of a lack of the right appreciation of personal responsibility, they care little for morality in its purest form, much less for religion in any form, except it be, indeed, for that sort which they can shape to suit their purpose in gaining their own ends. Can you fancy anything in human form more repulsive to a proper sense of high morality, more antagonistic to religion, or at greater variance with any law, physical or moral, than such a squirming creature would be? With all this disparity, we find men of every creed having a sense of responsibility, with some idea of reward and punishment the sequence, generally, of their education, or else their lack of education; but as we are not here to discuss the question of creeds, we simply drop a word that may lead to earnest thought upon a subject to which we ought to cling very closely in daily life.

Our sense of responsibility is usually moulded by the estimate we place upon righteousness; I mean righteousness in its literal sense, as it is embodied in uprightness of conduct and honesty of purpose. Well may we cast about and realize that our course is studded with signals of danger on every hand, wherever we look, whatever we contemplate, and more particularly so, as we embark in the mission of our life, whatever the calling may be, even though it be the humble sphere of the apothecary. With this thought I am reminded that, however humble an estimate we may place upon our profession, we can see among its ranks noble illustrations of the pains-taking custodian of his trust, many a hero, who, by arduous application and persevering toil alone, has attained the high position of the representative man valuing personal responsibility. We need not stray away from the portals of our own *Alma Mater*, as among the many useful men living, we have a goodly number that I should class among the exemplars of my ideal picture. I know the ground now tread upon is dangerous; to attempt a discrimination amongst the living is not always safe; until the course is run, our record is incomplete. It is better to speak of the virtues of those, who, having finished their course and their good works follow them, than to hold them up in life, surrounded by the dangers that assail; for many a noble-hearted, whole souled man and woman, with prospects bright as the best, have compromised with the pinching demands and trials of adversity. Human nature, in her weakness, often falters; moral nature becomes swamped by the tide, and what was once a right able representative of the sturdy oak of moral rectitude, has succumbed to the pressure of ill luck, with integrity, and everything akin to it, blasted—yea, absolutely gone.

We dare not risk an example, then, among the living, although we are permitted to point with pride to our honored faculty as sterling representatives of a hard-working and zealous class of men, who, by their own personal grit, have won the proud distinction they have attained, and for which we honor them; but, until their record of life is made, our theme and the danger of doing violence to their known modesty, forbids more than this passing complimentary mention. Whilst then we are not disposed to risk an example among the living in this age of leagues, intrigues, rings

and kindred corrupt abominations, our present purpose is better served, without in the least questioning the standing of the many noble men and women of the day, by scanning the generation that has preceded us.

Good and true men we have to select from—the children of this distinguished College, into whose fraternity, gentlemen graduates, you are this day being received; honored names we find upon the honored roll of her departed sons, friends and professors; glance with me at the portraits as they adorn the walls of the Museum Hall: many of them were our personal friends. I think now of that hard-working and hard-worked man, Professor William Proctor; of Professor Edward Parrish, in whom we young men always found a genial friend and counsellor; of Ferris Bringhurst, the noble representative of a rising young man. I think of these as types I can hold before you, and we can recall scores of others, if we try, who, having done well their part, now rest in peace, with laurels well earned encircling them, and our remembrance of them only most pleasing.

It does us good to tarry awhile among the memories of our dead, and as the veteran of many a field delights to recount the numberless escapes and thrilling incident of battles fought and victories won, and as the eye bedewed with the tear of sympathy for a fallen comrad proves his interest, so would we allow our eyes to moisten as we think of those veterans of this institution, through whose liberality and far-sightedness we enjoy our present and prospective privileges, and with feelings of veneration, bow our heads, and think of them as the good and true men, who, having been faithful to their trust, deserve that peace, well merited while on earth, as we think, and in the enjoyment of its fullest fruition now, as we dare hope.

It is within the province of the occasion to make a personal application of our theme to the present surroundings, and the class which is this day honored, will feel themselves specially addressed in the concluding remarks we have to make. As we recall the high positions that the Alumni of our good old College, in many instances, have attained, positions of personal trust and confidence, or as heads of some of the most important industries in the country, or most successful Pharmacies in the land, well beloved and highly honored in the respective communities in which their lot is cast, we are persuaded that those persons have had a just appreciation of our theme. The world is not lavish with honors not absolutely merited, although sometimes mistaken merit, by unjust discrimination, is honored, yet it does not often occur; misplaced confidence occasionally deceives. No profession is so eminently and peculiarly dependent upon the confidence of the public for success, as that of the Pharmacist. Have you ever been impressed as I have with the awful responsibility of our position, and what the assumption of the trust entails? Have you ever realized what an awfully solemn fact it is? Have you ever thought, as the physician's prescription is handed over the counter to you, as the compounder of the same, that you stand as a harbinger of health and life, or the sure medium of terrible death? This profession of ours is a solemn reality—a fact that needs to be considered often and well by us all. The confiding patrons of your store come to you, not as they go to the corner grocery—where the things they purchase are familiar to their sight and taste as household words are to the ear—but they come believing that the mysteriously and sometimes very badly written prescriptions, the import of which they rarely know—the hieroglyphics on it are as dead sounds to them—yet they come having confidence that you know all about it, trusting to your knowledge and skill, saying

by their act of confidence, I entrust you, Mr. Apothecary, with my own life, or that of one most dear to me. Such, I repeat, is the peculiarity of our profession, that we almost live on the confidence of the public. Let that confidence, by some mishap of yours, be shaken but once, as well might the mark of Cain be upon you then—your business is doomed; the profession of your choice can have but little in it any longer enticing to you—unless, as sometimes, alas, is the case, you degrade it by some chameleon-like change, whereby you become the druggier of drugs, instead of remaining the druggist.

Gentlemen :—In assuming the trust that will be given into your custody on the morrow—when you hope to receive the highest honor within the gift of our College to bestow, indulge us with the privilege of asking you to be faithful to the new trust—have ever before you in every sphere of action during the coming years, the fact that you must do well your part in this world, if you would share in its honors, or wear its laurels.

“Life is real—life is earnest,”

And he only who values his personal responsibility, has a just appreciation of the poet's sentiment.

And now, gentlemen, whatever of weal or woe may be your experience as you drift out upon life's mission, as we bid you God speed, may we never have a returning echo, that you were recreant, either to your trust or to the good old College, that this day welcomes you to the bosom of her fellowship.

The President then announced the names of the following gentlemen, who were entitled to certificates, they having received the highest average on the various branches of *Materia Medica*, Pharmacy, Chemistry, Pharmaceutical Manipulations and General Pharmacy :

Robert Gibson, Jr., of Wheeling, W. Va., on *Materia Medica*; Samuel W. Gadd, of England, on Pharmacy; Conrad G. Hoell, of Camden, N. J., on Chemistry; Geo. Latin, of Dayton, Ohio, on Pharmaceutical Manipulations, and John E. Sombart, of Boonville, Mo., on General Pharmacy.

Dr. A. W. Miller, Ph. G., of the Class of 1862, then presented the certificate on *Materia Medica* to Mr. Robert Gibson, Jr., as follows :

MR. ROBERT GIBSON, JR.:

In accordance with the request of our worthy President, it becomes my very agreeable duty this afternoon to present to you, Sir, the certificate of proficiency in the department of *Materia Medica*. You, as well as your fellow-graduates, are undoubtedly aware of the peculiar honor which attaches to the possession of this Certificate, above all others. You, no doubt, fully appreciate the rigid scrutiny, the painstaking care, and the mathematical accuracy with which the *Materia Medica* papers are marked by our illustrious Professor. You may, therefore, congratulate yourself in having found favor in his eyes, and you are justified in feeling an honest pride in the possession of this coveted prize.

I trust, Sir, that the career which you have now fairly begun, under such favorable auspices, will be continued and persevered in by you with as much indomitable energy as heretofore. I hope that we may soon hear from you in the shape of original investigations in *Materia Medica* and the cognate sciences. I also trust, Sir, that when you will have established yourself in the profession of your choice, you will send many disciples of yours to these halls to follow your own good example.

You bear with you in your future life the best wishes of the officers and members of our College.

I bid you farewell.

Mr. Gibson, Jr., bowed his acknowledgment.

The certificate of Proficiency in Pharmacy was then presented to Mr. Samuel W. Gadd, by Mr. Geo. W. Kennedy, Ph. G., of Pottsville, Pa., of the Class of 1869, who spoke as follows :

MR. GADD :—

I was not aware till this moment, that Johnny Bull and Uncle Sam were to come together face to face under such pleasing circumstances. At the request of the President of the Alumni Association of this College, I am here for the purpose of presenting to you, Sir, as the most accomplished student in the department of Pharmacy, this reward of merit. In the recent examination to which you were submitted, you have excelled all others in this particular branch, although you have had 113 able competitors. You have made a good beginning; I hope you will continue in your studies. The field of Pharmacy is large, and the laborers are few, and I sincerely trust you will increase the number, and do good work. Do not think, Sir, because you will be in possession of the Diploma of this College, that you will have nothing more to learn. Why, Sir, you have only been on probation, as it were, and are now considered qualified and capable of taking charge of any Pharmacies. When you leave this country, and have crossed the mighty deep and arrived safe on your native soil, I trust that we shall have the pleasure of reading some of your researches on Pharmacy. Accept my congratulations, the congratulations of the Alumni Association, and on behalf of it I present to you, Sir, this Certificate of Proficiency in Pharmacy.

Mr. Gadd replied :

I thank you, Sir, and the members of the Alumni, for this honor you have conferred upon me; and as my probation has been such that you have seen fit to bestow this upon me now, I trust that I may prove myself worthy to possess it through the future, by my application to the profession I have chosen. And I must also add, that when I return to England, my native land, as you remarked, and look upon this, it will not only indicate to me the reward of labor, but will also bring to mind the pleasant associations formed, and the happy hours passed in the Philadelphia College of Pharmacy, which recollections, gentlemen, can never be erased from my memory.

The certificate for the Proficiency in the study of Chemistry was then awarded to Mr. Conrad G. Hoell, by Dr. R. V. Mattison, Ph. G., of the Class of 1873, as follows :

MR. HOELL :

I have the pleasure of presenting, in the name of the Alumni Association of the Philadelphia College of Pharmacy, this beautiful Certificate for excellence in Chemistry. As it is a record of work well done, let its possession ever be a reminder of the work to be done in the future, in the field of science, which you have chosen for your life work. In conclusion, Sir, accept my congratulations for yourself and your associates.

Mr. Hoell thanked the Association.

Geo. Latin was then presented with the certificate on Pharmaceutical Manipulations, by Mr. Hugh Campbell, Ph. G., of the Class of 1866, President elect of the Association, as follows :

Having excelled your associates in the class as an expert manipulator, it gives me great pleasure to present this Certificate to you, in the name of the Alumni Association, with their best wishes for your future welfare and success.

Mr. Latin, in a few words, thanked the Association.

Mr. Wallace Procter, Ph. G., of the Class of 1872, presented the certificate of General Pharmacy to Mr. John E. Sombart, as follows :

MR. SOMBART :

It is with great pleasure that I fulfill my duty of presenting to you, in the name of the Alumni Association of the Philadelphia College of Pharmacy, this Certificate of Proficiency, in the branch of General Pharmacy, and feel sure that it will always be a guarantee of your skill in the practice of the art behind the counter.

Mr. Sombart replied in a few appropriate words, thanking the Association.

The President then announced the names of the following students who had graduated with the grade of very satisfactory, and had not received prizes, as worthy of distinguished mention :

S. L. Talbot, of Boston, Mass.	John W. Hoffa, Harrisburg, Pa.
L. Clay Collier, Kenton, Iowa.	Frank S. Harker, Phila., Pa.
Thomas M. Galbreath, Dublin, Md.	Charles F. Zeller, " "
Chas. P. Stout, Florence Heights, N. J.	M. W. Zimmerman, " "
Henry E. Peters, Allentown, Pa.	George M. Beringer, " "
S. W. Strunk, Quakertown, Pa.	George H. Ochse, " "

The Valedictory Address, on behalf of the Graduating Class, was then delivered by Mr. Geo. A. Ferdinand, of Dubuque, Iowa, as follows :

Valedictory Address

TO THE GRADUATING CLASS.

RESPECTED PROFESSORS, LADIES, MEMBERS OF THE ALUMNI AND FELLOW GRADUATES.

It is with considerable diffidence that I undertake to deliver the valedictory address that the class of which I am a member desired me to do, especially when I consider that there are so many members more able to do justice to the subject than myself. But still, when I look about me and behold so many faces that betray more than mere curiosity, but rather a kindly interest and sympathy, all the restraint and natural timidity I might otherwise have felt seem to disappear, and in the warming atmosphere of brotherly good-will that envelopes us, I feel assured that my efforts, imperfect though they may be, will meet with your kind attention.

As I stand here this evening and behold my classmates around me, and with them many more whom our Alma Mater has, during a succession of years sent out into the world with the impress of her teachings upon their minds, I feel that it does not require a wealth of words nor brilliant imagery to tell you simply from my heart how happy I am and how highly I prize the honor of being the medium of communication between the older and the younger portion of our Alumni so happily united this evening.

We are here to-night as the latest link of that chain which extends yearly, uniting each new class in the bonds of fraternal union, a union that we now so auspiciously commemorate. We rejoice that we have been the means of lengthening that chain, and we will see that our link is made a strong one; without flaw or blemish, and which will serve to strengthen the union of the past with the future, so soon to be realized by the class that succeeds us. And when we thus speak of *Time* what great contrasts in that which so especially concerns us, do not the present and the past afford, and what surprises the *future* may yet have in store for us, may be estimated by those we have already experienced.

The February number of the *Journal of Pharmacy* contains some very amusing, though interesting, reminiscences of the art of Pharmacy as practiced fifty years ago; and, quoting the writer, "Looking back to that time and comparing the duties of the apprentice then with what they are now, one almost wishes he had been born fifty years later." In those days the apothecary made for his patrons six or more grain pills, nauseous powders of

twenty-five grains, and infusions, half pints of which were to be taken at a dose ! But what a reformation ! Now we make and dispense our preparations in both a palatable and concentrated form. We have apparatus which greatly diminishes our labor, thus enabling us to employ the time gained in mental improvement. In our land great progress has been made in the science of our profession. And to whom are we indebted for the great advancement made ? Mainly to that benign mother in whose halls we are this evening assembled, and whose children we are. To her efforts, and to the efforts of her sons who have gone before us, are we indebted for all the advantages we now enjoy. She tells us we are not merely to be compounders of pills and powders, but truly scientific Pharmacists and men of culture. Among her sons we occasionally may see a "lean and hungry-looking apothecary," as Shakespere says, so far as the body is concerned ; but as regards the mind this condition should be a real *rara avis in terra*.

The pharmacy of our day is, we regret to say, not in as perfect a condition as we would desire. There are many who, under cloak of the titles Apothecary, Druggist and Pharmacist, disgrace themselves, bring obloquy upon us, and retard the progress of true pharmacy. To constantly bemoan this fact will not remedy the evil. We must act ! As our government is now constituted, it is true, it would be difficult to enact a general pharmacy law that would be binding on all the States. But we *can* use all legitimate means to have such laws made in our own States ; and to that end we should consider it our duty to join the State pharmaceutical associations. Should there be no such association in the State in which we reside, let us then endeavor, with the aid of other reputable pharmacists, to organize one. We all know that in union there is strength, and it is by such union only that we can influence legislation and obtain stringent laws regulating the practice of pharmacy. When every State in this Union has such laws, then the abuses of which we now complain will in a great measure be remedied.

Whilst we are thus endeavoring in a special manner to place our art upon a higher plane, we must not lose sight of other means by which this object can be obtained. Constant study and striving after knowledge must not be forgotten. Our respected professor of chemistry, in his introductory lecture, has already demonstrated to us the practical value of organic chemistry to pharmacists. Organic analysis is as yet in its infancy, and why cannot we obtain fame as well as advance our common interests by our investigations therein ? See what fields are unfolded to our view by the microscope, the polariscope, the spectroscope, and other instruments all in our domain. For the uses to which these instruments can and have been applied, we have but to refer to our text books of materia medica—the National Dispensatory. That book not only indicates to us what has been done by scientific research for the elevation of our profession, but also what can and still remains to be done. We stand now on the threshold of the future, and it is in our power to shape that future to our advantage, and to the credit of our Alma Mater by continuing in the path which she has so considerately laid out and already paved for us.

To our beloved Professors we now bid farewell, and though we may no longer behold their familiar faces, nor experience the happy influence of their counsels, yet will their memory ever be dear to us, and the period spent under their directing hands be considered among the pleasantest, as well as the most fortunate of our lives. There is yet another from whom we part with regret, and whose memory will ever be green in our hearts; one who, by his unselfishness and devotion to the students and their interests, has endeared himself to them all. Classmates, you all know to whom I refer. Wander any evening into the library and there you will find him, no matter how preoccupied, always ready and willing to assist you.

In conclusion, allow me, classmates, to wish you all a pleasant and prosperous career, and to thank and bid farewell in your name to our kind friends, the Alumni, to whom we are indebted for this reception.

The President then announced that Mr. Geo. Goebel, Jr., of Philadelphia, had received the highest average in the Junior examination, and that he would be presented with the certificate provided for the student of the Junior Class who passed the best examination.

Mr. L. E. Sayre, Ph. G., of the Class of 1866, then bestowed the certificate on Mr. Geo. Goebel, Jr., with the following remarks:

In the list of Prizes presented by the Alumni Association there is one I do not by any means consider the least important. It is the prize to the student passing the best Junior examination. For two reasons we are glad of this. First, for the credit naturally accruing to your own benefit, and the credit reflected upon your able Professors and our beloved College. We trust your future with us will be as highly marked, and in presenting to you this certificate allow me on behalf of the Alumni Association, not only to extend to you our congratulations, but if possible stimulate you to strive on to keep and maintain in your senior year the good name you have gained in this.

Mr. Goebel received it with thanks.

The President then read the names of the following gentlemen who had successfully passed the Junior examination, and had received the grade of very satisfactory, and were worthy of special mention.

Charles F. Chapman, Ohio.
George H. English, N. J.
William H. Faunce, Pa.
Louis Genois, La.
Harry W. Harper, Mo.
Washington E. Linden, Ohio.

Lucien E. R. Lyon, S. C.
Constanz Manz, Iowa.
Frank L. Slocum, Wis.
Edward W. Smith, Pa.
Everard P. Stephens, Del.
Charles G. Traub, Ind.

The regular programme being then finished, the students and graduates who, throughout the exercises were most demonstrative in their applause, called upon Professors Maisch, Sadtler, Remington, Mr. Henry Trimble, and several members of the Association who were in the audience, and who briefly responded in a formal way.

Mr. J. L. Lemberger, President of the Zeta Phi Alpha (the social society of the College), then made a few brief remarks in reference to the society, and hoped to see all the Graduating Class present at the meeting on the morrow, and urged them to enroll themselves as members of it, after which the meeting adjourned and the large audience and members slowly dispersed, well pleased with the afternoon's entertainment, the Sixteenth Annual Reception to the Graduating Class of 1880.

The following gentlemen have made application for certificates of membership since the Annual Meeting :

Wardle Ellis, - - -	Class 1870	James P. Kern, - - -	Class 1880
John P. Curran, Jr., - -	" 1879	William J. Killingbeck, - -	" 1880
Charles Beale, - - -	" 1880	John Klemet, - - -	" 1880
George H. Colton, - - -	" 1880	John W. Kohlerman, - -	" 1880
Adam C. Daniels, - - -	" 1880	George Latin, - - -	" 1880
George A. Ferdinand, - -	" 1880	Amandus J. Luethe, - -	" 1880
Frank Frisby, - - -	" 1880	George R. Ross, - - -	" 1880
Gustav A. Fruh, - - -	" 1880	George W. Schimminger, -	" 1880
Franklin S. Garman, - -	" 1880	Harry L. Smedley, - -	" 1880
Alfred K. Hartzell, - -	" 1880	Joseph S. Madison, - -	" 1880
Conrad G. Hoell, - - -	" 1880	Charles H. Roberts, - -	" 1880

IMPORTANT NOTICE.

Any member of the Association who desires to procure any of the back numbers of the Annual Reports of the Alumni Association (from the first to the fifteenth, inclusive), to complete his set, can now procure them by addressing the Secretary, Wm. E. Krewson, No. 1801 N. Eighth street, or the Treasurer, Edward C. Jones, Cor. Fifteenth and Market streets, enclosing ten cents (10c.) per copy, with the cost of postage or expressage.

Minutes of the Executive Board.

MINUTES OF SPECIAL MEETING.

March 26th, 1879.

At the written request of William E. Krewson, E. C. Jones and Richard V. Mattison a special meeting of the Executive Board was held in the library of the College March 26th, 1879, 3 P. M. Members present, Krewson, Campbell, Wiegand, Trimble, Mattison, Jones, Martin and Murray. President-elect Krewson in the chair. He stated that the reason for calling the meeting was an ambiguity in the Constitution regarding the time when the new officers shall be considered to take charge of their duties.

Mr. Jones spoke in explanation of the clauses under consideration.

Dr. R. V. Mattison offered the following amendment to the Constitution: in Sec. 2 of Art. III, insert the word "stated" between "first" and "meeting." Change the word "holding" to "performing," "election" to "meeting," "and" and "preceding" until "to" or so that it shall read:

Sec. 2. All the above-named officers shall be elected by ballot at the annual meeting, and shall enter upon their duties at the first stated meeting of the Executive Board, performing the same for one year following said meeting (excepting the Executive Board, two of whom only shall be elected as aforesaid, and holding their office for a term of three years) or until their successors shall have entered upon the discharge of their duties.

Also, to strike out all following the word preside in the first sentence of Art. IV, Sec. 2, so that it shall read: "At the opening of each annual meeting the President shall call the meeting to order and preside." After a general debate it was so ordered. The President stated that the Seventh Annual Report of the Association was out of print, and suggested having five hundred copies printed, which he said could be done for \$25.00.

Dr. Mattison moved that if they were printed at all, it should be done with funds raised by subscription. Carried.

Mr. E. C. Jones stated that the entire edition was lost except about a dozen copies, during a cleaning up of the College. He thought many members were eager to complete their files.

Dr. Mattison moved that a committee of three be appointed to take the matter in hand and solicit subscriptions. Carried. Mattison, Trimble and Jones were appointed. Mr. Campbell moved to reconsider the motion. Carried. It was now moved to have a committee of four, of which the President elect shall be chairman. Chair appointed Wiegand, Jones and Murray. Adjourned.

F. MARION MURRAY,

Secretary pro tem.

MINUTES OF FIRST STATED MEETING.

May 1st, 1879.

The first stated meeting of the Executive Board was held at the College Hall, May 1, 1879.

Members present, William E. Krewson, Henry Trimble, E. C. Jones, R. V. Mattison, T. S. Wiegand and W. W. Moorhead.

President Krewson in the chair.

In the absence of Recording Secretary Murray the Chair appointed W. W. Moorhead Secretary *pro tem*. The roll was called and the reading of the minutes of special meeting was reluctantly dispensed with, owing to the absence of the Secretary. *

Mr. Jones reported for the Album Committee that they had received eighty-two photographs of the last class of one hundred and eighteen.

Mr. Moorhead reported the publication of the Fifteenth Annual Report at the expense of \$235. The advertisements bring in \$295, netting to the Association the handsome sum of \$60.

Mr. Wiegand as Trustee of the Sinking Fund reported the fund now amounted with accrued interest to \$648.04, of which \$18.00 was due him, being amount paid for gold medal.

On motion of Dr. Mattison it was resolved to defer the consideration of change of time of holding social meetings till the August meeting of the Executive Board and that the Secretary notify the members accordingly. The appointment of a committee on social meetings was also postponed till next meeting.

Corresponding Secretary Wm. A. Ball reported through Mr. Wiegand that he had notified Joseph L. Lemberger of his election as orator for our next Annual Reception, and that he had accepted the duty.

Mr. Jones stated that Professor Maisch had expressed a wish for a set of the Alumni Reports to present to the University of Strasburg, and on motion it was decided to furnish a set as far as complete.

It was moved and seconded that a complete set of our Reports be bound in one volume for the Association, and that Mr. Wiegand be requested to attend to the matter.

The President appointed as a Committee on Deceased Members, Charles W. Hancock, James A. Parker and Charles J. Biddle. The Secretary was directed to notify them.

Mr. Jones presented the following bills which were ordered to be paid :

J. E. Soule \$10.00, making two certificates, five yards blue ribbon 50 cents ; F. Fritz \$12.50, filling certificates. Being no other business, on motion adjourned.

(Signed)

W. W. MOORHEAD,
Secretary pro tem.

* NOTE.—Secretary Murray absent on account of having recently removed to the country.

MINUTES OF SECOND STATED MEETING.

August 7th, 1879.

The second stated meeting of the Executive Board was held in the College Hall, Thursday, August 7th, 1879.

Members of the Board present, Wm. E. Krewson, Edward C. Jones, Henry Trimble, W. W. Moorhead, Thomas S. Wiegand, George W. Kennedy, R. V. Mattison and the Secretary.

The minutes of the last special and stated meetings were read and approved.

The Secretary read a postal card from the first Vice President, Hugh Campbell, announcing his inability to be present.

Thomas S. Wiegand, the Committee on Binding the Reports for the Association, reported the duty completed at a cost of 55 cents. Ordered paid.

Committee on Seventh Annual Report reported progress.

President reported the death of Charles F. Bolton, "class of 1871." Once an active member.

President appointed as Committee on Prizes, L. E. Sayre, E. M. Boring and William McIntyre.

Discussion on change of time and manner of conducting social meetings now came up. Mr. Jones said it had been suggested that the meetings had latterly been too scientific, thus crowding the students out, and also in a measure interfering with the Pharmaceutical meetings.

He proposed that the meetings be held bi-monthly. At one of these meetings—the regular monthly meeting—a lecture should be given by some member of the Association. At the other meeting, which would be essentially a quiz, six questions, two from each branch should be given the students by the Senior Quiz Master in their respective branches, these to be answered in writing and the result reported at the next meeting.

Prof. Maisch, who was present by invitation, objected to multiplying the number of meetings unnecessarily, but favored a written quiz plan of giving the question at one meeting and allowing the students to hand in an answer at the next, they to get the answers wherever they chose.

Mr. Wiegand and Mr. Kennedy also spoke on the subject. Some favored weekly meetings and a change of meeting day, so as to connect regularly with the Pharmaceutical meetings, omitting, however, an Alumni meeting for that week.

Mr. Jones moved that the regular social meetings be held on the second Tuesday of the month, and a quiz either verbal or written on the first and fourth Tuesdays, the quizzes to be conducted by a committee appointed by the Executive Board. Seconded by Kennedy. Lost.

Dr. Mattison moved that in the opinion of this Board it is undesirable to change the time of the social meetings. Seconded by the Secretary. Carried.

Wm. W. Moorhead moved to reconsider this motion. Seconded by Dr. Mattison. Carried. Mr. Moorhead moved to change the time of holding social meetings to second Thursday of the month. Carried.

President appointed as a Committee on social meetings, R. V. Mattison, W. W. Moorhead, and Henry Trimble from the Board, L. E. Sayre, and William McIntyre from the Association at large—five in all.

On motion, it was decided to request the Zeta Phi Society to appoint a committee of four on Social Meetings to act with the committee from this Association. Delegates to the American Pharmaceutical Association were then nominated, and the following were elected: E. C. Jones, Wm. McIntyre, A. W. Miller, Geo. W. Kennedy, and Lewis C. Hopp, with power to appoint alternates.

President appointed as a committee to attend the Introductory Lecture, and procure it for publication in our next report, R. V. Mattison and E. C. Jones.

The meeting adjourned.

F. MARION MURRAY,
Secretary.

MINUTES OF THIRD STATED MEETING.

November 6th, 1879.

This meeting was called to order at 3.30 P. M., by President Krewson. Members present were: Messrs. Krewson, Trimble, Campbell, Kennedy and Mattison.

Mr. Kennedy disappearing, and the Secretary and Treasurer being both absent, an adjournment was put and carried, adjourning to the afternoon of November 13th.

R. V. MATTISON, M.D.,
Secretary pro tem.

MINUTES OF THE ADJOURNED MEETING.

November 13th, 1879,

This meeting was called to order at 5 P. M., with President Krewson in the chair. Members present were: Messrs. Krewson, Moorhead, Miller, Trimble, Campbell, Jones and Mattison.

E. C. Jones reported from the committee to attend the Introductory Lecture, that Prof. S. P. Sadtler delivered the introductory address, after being introduced by Mr. Charles Bullock; which address was at the service of the Alumni, having already been printed in the November number of *American Journal of Pharmacy*. An informal discussion occurring on the matter of bestowing prizes, a committee of three, consisting of E. C. Jones, Hugh Campbell and Dr. A. W. Millar, was appointed to decide in conjunction with the committee at large already appointed at a previous meeting, what prizes it seemed best to offer the graduates of the coming year.

Mr. E. C. Jones moved that a committee of three be appointed to assist the Secretary in the preparation and publication of the forthcoming report; this was seconded by W. W. Moorehead, and on the question being put by the President, was agreed to. The President then appointed the committee for

the purpose, consisting of E. C. Jones, Henry Trimble and Dr. R. V. Mattison. There being no further business on motion, the meeting adjourned.

R. V. MATTISON,
Secretary pro tem.

MINUTES OF THE FOURTH STATED MEETING.

February 5th, 1880.

The Fourth Stated Meeting was called to order at 4 P. M., on Thursday, February 5th, with President Krewson in the chair. Members present were: Messrs. Krewson, Campbell, Moorhead, Trimble, Jones, Miller, Ball, Wiegand, and Dr. Mattison. Dr. Mattison was appointed Secretary *pro tem.*, owing to the absence of Dr. Murray. Reports of committees being in order, E. C. Jones, as chairman of committee to attend the meeting of the American Pharmaceutical Association, reported that he had been unable to attend the meeting, but the third member of the committee, Dr. A. W. Miller, who was present, would report on the same.

Dr. A. W. Miller reported verbally to the meeting, and promised to have his report ready in time for the use of the committee on publication. After some discussion on the matter of time for holding the Annual Meeting and Reception, it was decided on motion of Mr. Henry Trimble, to hold the Annual Meeting at 3 P. M. on Saturday, the 13th day of March, and the Reception on the evening of the same day, commencing at 8 P. M.

Dr. Mattison moved that we omit giving the Special Certificates, consisting of one accompanying the bestowal of the gold medal, one for the best thesis, one for the best collection of indigenous specimens of materia medica, and one to the junior student passing the best examination. Carried. Mr. E. C. Jones voting in the negative.

The Committee on Prizes was directed to obtain certificates for the students passing the best examinations in Chemistry, Materia Medica, Pharmacy, Pharmaceutical Manipulations, and General Pharmacy.

Bills were presented from W. E. Krewson (\$8.10) and E. C. Jones (\$5.94) for delivering Alumni reports of 1879, and ordered paid. Messrs. Krewson and Jones donated the amounts to the publication fund of the Seventh Annual Report, when Dr. Mattison moved to appropriate the sum of \$5.00 from the general fund of the association to aid in the re-publication of the above report. Carried. Dr. Miller moved that the thanks of the Association were due, and were hereby presented to Messrs. Krewson and Jones, for the faithful manner in which they had distributed the reports. The motion seconded was put as question to the Board and carried unanimously, when, on motion, the Board adjourned. RICHARD V. MATTISON, M. D.,

Secretary pro tem.

MINUTES OF A SPECIAL MEETING.

February 12th, 1880, 3 P. M.

This meeting was called at the request of Messrs. Jones, Moorhead, Mattison, Miller and Trimble, President Krewson in the chair, with Messrs. Ball, Jones, Procter, Moorhead, Campbell, Hancock, Miller, Mattison and Trimble present. Mr. Trimble was appointed Secretary *pro tem*. Mr Ball moved to reconsider the motion made at last meeting, fixing the time for the Annual Meeting and Reception. Carried.

It was decided, on motion of Mr. Campbell, to hold the annual meeting on Monday, March 15th, at 2 P. M., and the reception at 4 P. M.

A note from Mr. J. L. Lemberger was read, expressing a willingness to act as orator on the above day.

The motion made by Dr. Mattison and adopted at last meeting, "that we omit giving the special certificates of one accompanying the bestowal of the gold medal, one for the best thesis, one for the best collection of indigenous plants, and one to the junior student passing the best examination," was, on motion of Mr. Procter, reconsidered. Dr. Miller moved to omit giving certificate with gold medal. Amended by Mr. Trimble to omit all special certificates, (the one with the gold medal, one for the best thesis, and one for the best collection of indigenous plants,) except the one to the junior student passing the best examination. Accepted by Dr. Miller and carried.

After some discussion on the subject of printing the annual report, it was decided by motion of Dr. Miller to refer the whole subject to the Publication Committee, with full power to make the best possible arrangement.

On motion of Mr. Jones, the Secretary *pro tem*. was directed to sign five certificates of membership. Motion for adjournment. Carried.

HENRY TRIMBLE,
Secretary pro tem.

Minutes of Social Meetings.

THE First Social Meeting of the Alumni Association of the Philadelphia College of Pharmacy, was held October 9th, 1879, at 3.30 P. M., with President Krewson in the chair. After a paper by Mr. L. E. Sayre, the meeting being small and the winter's class of seniors being practically unrepresented, the meeting was addressed by several members without anything of public importance being elicited. Some specimens of pharmaceutical preparations were presented for recognition when after some desultory conversation the meeting adjourned.

F. M. MURRAY,
Secretary.

THE Second Social Meeting of the Alumni Association of the Philadelphia College of Pharmacy was called to order on Thursday, November 13th, 1880, at 3.45 P. M., with President Krewson in the chair, and twenty members and visitors being present. Owing to the absence of the Secretary the reading of the minutes were dispensed with, and Dr. Richard V. Mattison appointed Secretary *pro tem*.

Reports from committees being in order, Dr. Mattison stated that he had notified the proper officers of the Zeta Phi Society of the previous action of the Executive Board of the Alumni, and that the president of the Zeta Phi Society had appointed a committee, the Chairman of which, Mr. A. J. Detzer, was present. Mr. Detzer reported that the object of the meetings had not until recently been understood, but that now the committee would act as designated by the Association. As the first of the series of matters to be brought forward of interest, he stated that he had prepared an elixir of Cinchona and Iron by making a hydro-alcoholic tincture of the bark, and adding to this a small quantity of ferric hydrate, and after agitating occasionally for twenty-four hours, filtering and adding sugar and menstrum to make an elixir of the proper strength. He was unadvised as to the quantity of iron taken up by the percolate, and desired to know whether any iron was dissolved by the same, and if so, how much? Dr. Mattison explained that the object of using the iron was for the purpose of detannating the percolate, and that the resulting filtrate was free from iron, which was hence absent from the elixir. Mr. W. W. Moorhead said he had had less trouble by using the alkaloids in the preparation of the elixir, and, in answer to a question, said he preferred to use them on account of its being less trouble, and furnishing a more elegant preparation.

The President said his habit was to use the alkaloids instead of the bark, and believed such was the custom of druggists furnishing fine preparations. His own, prepared in this way, were preferred by the physicians of his neighborhood.

Dr. Mattison on being questioned regarding the usage among manufacturers, said they preferred to use the sulphates of the four chief alkaloids of cinchona bark, for the reason, mainly, that the preparation could then be made of a definite strength, which was impossible when the elixir was made from the bark without assay. The speaker, continuing, said that cinchona bark was sold from three cents a pound up to two dollars, and of qualities ranging from those which were nearly or quite free from any alkaloids whatever, running first to those grades containing cinchonina only, to those containing cinchonidia, quinidia, and, lastly, quinine largely. The difficulty of recognizing a bark of high quality was insuperable without a quantitative analysis. This, few druggists were prepared to do, and he therefore preferred for general purposes to advocate strongly the use of the alkaloids instead of the bark, as by their use any desired strength could readily be obtained.

Mr. Henry Trimble spoke of the change of color occurring in elixirs containing ferric pyrophosphate, and asked for information regarding the theo-

ries of the change occurring in this salt. Mr. Detzer said that he had difficulty in dissolving the ferric pyrophosphate of the market, and had also noticed the change in the color of the ferric solution.

Dr. Mattison said that it was a well-known fact that both solution and scales of this salt become changed by the action of light, but was not cognizant of the nature of the change. When the officinal ferric pyrophosphate is prepared by dissolving the insoluble ferric pyrophosphate by means of sodium citrate, instead of ammonium citrate, this change was prevented, while its therapeutic properties were in no way interfered with by the change.

Mr. George M. Beringer stated that he had prepared the elixir preferably by making an alcoholic percolate of the bark, evaporating to dryness and dissolving this in simple elixir.

Mr. Trimble presented a specimen of Sarcosine or methyl-glycocol, and stated that while the simplest method of preparation was by the action of monochloracetic acid upon methylamine, yet his experience in the preparation of monochloracetic acid had been such as to lead him to prefer to make the sarcosine from meat. To obtain the product presented, about a gramme, he chopped fifteen pounds of lean beef finely, and exhausted it with water. This solution was then boiled to coagulate the albumenoids, after which the sulphates and phosphates were removed by means of baryta water, and the solution concentrated until the creatine crystallized out. By boiling the creatine afterward with baryta water, it is split up into urea and sarcosine, which latter crystallizes in brilliant rhombic prisms, having a burning sweet taste. The whole product obtained from the fifteen pounds of meat, including imperfect crystals, was about three grammes.

The medical uses of sarcosine being referred to Dr. Mattison, he stated that it had been used to some extent, and with good success, in gout, and with less success in acute articular rheumatism. Dr. Mattison then presented specimens of benzoic acid made from urine: and also a specimen of the same obtained from benzoin by sublimation; and a handsome specimen of ammonium benzoate in well defined crystals, prepared by a member of the senior class, Mr. George W. Hayes.

Mr. John E. Cook presented nine specimens of the organic materia medica, two of which were recognized by the class.

Mr. W. W. Moorhead presented six specimens of chemicals for recognition, all of which were recognized, after which the meeting adjourned.

RICHARD V. MATTISON, M. D.

Secretary pro tem.

THE third of the series of the Social Meetings of the Alumni Association of the Philadelphia College of Pharmacy, was called to order at 3.35 P. M., on Thursday, December 11th, 1879, with President Krewson in the chair. The Secretary, Dr. F. M. Murray, at his post and thirteen members present, the small attendance being probably on account of the inclemency of the weather.

The committee from the Zeta Phi Society of Senior Class reported through their secretary, Mr. A. J. Detzer, that some interesting matter was in hand, but the committee deemed it best to postpone it until the next meeting, on account of the limited attendance.

Mr. W. W. Moorhead presented six specimens of tinctures and Mr. H. L. Smedley presented ten specimens of chemicals and also a specimen of powdered camphor. Some discussion arising upon the latter, Mr. Smedley said it was from a New York drug house and would be investigated by the time of the next meeting.

Mr. A. J. Detzer asked for information in reference to the following prescription, viz :

R. Morphiae Sulphatis,	.	.	.	gr. viij
. Camphoræ,	.	.	.	3iv.
Oleum Petrolei,	.	.	.	f3viiij.
Misce.				

and stated that it was furnished upon some occasions with the camphor wholly dissolved, while on others the camphor was precipitated upon the sides and bottom of the bottle. The secretary stated that this difference was probably due to the different qualities of kerosene oil employed.

Mr. C. H. Roberts asked for information on the dispensing of the following prescription; the difficulty being the precipitation and crystallization of the quinia acetate :

R. Strychniae Sulphatis,	.	.	.	gr. ss.
Quiniae Sulphatis	.	.	.	grs. xxiv.
Acidi Acetici, diluti,	.	.	.	f3iss.
Potassi Acetatis,	.	.	.	3iiss.
Tinctura Ferri Chloridi,	.	.	.	f3iv.
Syrupi Limonis,	.	.	.	q. s. ad. f3ij.
Misce.				

It was suggested in reference to the above that it be dispensed, with the acquiescence of the prescriber with the addition of sufficient acid to make a clear solution.

Mr. Baker noted the precipitation of solution of magnesia sulphate upon the addition of a certain quantity of spirit of nitrous ether, when Dr. Mattison suggested the precipitation was due to the alcohol contained in the latter. The matter was carried over to the next meeting, after which Mr. Marshall promised a paper on tincture of *quillaya saponaria* as an emulsifying agent for the next month, when at 4.20 P. M., upon motion, the meeting adjourned.

F. MARION MURRAY,

Secretary.

THE fourth of the series of Alumni Social Meetings of the Philadelphia College of Pharmacy, was called to order at 4.20 P. M., on Thursday, January 8th, with some thirty members present. The President and Secre-

tary being absent, Mr. L. E. Sayre was called to the chair, and Dr. R. V. Mattison appointed Secretary. In the absence of the official minutes of the previous meeting, the report of the same as published in the January number of the *Monthly Review of Medicine and Pharmacy* was read at the request of the President. The Secretary then read a letter from President Kerwson, excusing his absence on account of sickness. The Zeta Phi Committee having nothing to report, new business was declared in order, when Mr. H. L. Smedley reported on the subject of powdered camphor, which had been referred to him at the last meeting, that he had prepared several preparations from the same, and had tried the action of several reagents upon the article without being able to discover any impurity or adulterant. While engaged in these experiments he received a letter from the manufacturers of the article, Messrs. Lazell, Marsh & Gardiner, of New York, who stated that the article was prepared by sublimation, and was perfectly pure, but without giving any details of the process, which was not, however, to be expected from the manufacturers, since manufacturers generally are not so overflowing with love for the cause of science, as to make public processes which have cost often large sums to perfect, which, while they do the public no particular good beyond gratifying their curiosity, give rival manufacturers advantages which they are not slow to turn to their own account.

The discussion which followed was based purely on theoretical grounds, and was very amusing. One member thought that quick vaporization and slow condensation was the secret of the process for preparing this article; another imagined that rapid condensation would be preferable; while still another evolved from his inner consciousness the idea that if a blast of cold air from a bellows could be made to impinge upon a current of the camphor vapor, and so thoroughly scatter it in a cool receiver, the product would equal, if not, indeed, surpass the product of the firm previously referred to. The President then made some extended remarks, in the course of which he said that it had been brought to his notice in several instances, that the students felt keenly the disadvantages which arose from the fact of their only hearing one series of lectures upon the subject upon which they were to be examined, and that more than ever before, the College demanded a *description* of drugs. He asked the senior students present to take a typical root, such as licorice root, and each prepare a paper on the points of similarity and difference between this and other officinal roots. The juniors he asked to prepare each a paper on the parts of a plant, beginning with the spheroidal cells of the pith and passing to the cylindrical and tabular cells of the wood and back, then to describe the parts of the plant, the stems, leaves, flowers and products of flowering, promising to read the best paper before the next meeting and present the author with a rare specimen of the materia medica.

Mr. Henry Trimble presented a preparation made by Mr. Pennypacker, for disguising the taste of quinine, consisting of

R. Ext. Taraxaci Fld.
Ext. Glycyrrh Fld.
Elix. Simp. āā partes æquales.

The President then spoke of the physicians of his neighborhood preferring the Elixir of Eucalyptus Comp. as a vehicle for the administration of quinine. He was in the habit of preparing an elixir of licorice. The origin of the Com. Elixir of Taraxacum was then narrated, and the use of taraxacum commented on as a vehicle for disguising the taste of quinine. The general tone of comment indicated that in the opinion of the members present, taraxacum was without any value for purposes of this description.

The subject of the manufacture of the homœopathic preparations known as "mother" tinctures being referred to, led to a general conversation in regard to the preparations of this medical sect. Numerous instances were given, and innumerable more might have been, where quinine was given by homœopaths in from 2 to 5 gr. doses, podophyllin in doses of one-fourth grain, etc. Nothing new was elicited through the discussion, and after the specimens presented by Mr. H. L. Smedley were recognized, the meeting, on motion, at 5.25 P. M. adjourned.

RICHARD V. MATTISON, M. D.,

Secretary pro tem.

THE Fifth Social Meeting was held February 12th, 1880.

The meeting was called to order at 4 P. M. President Krewson in the chair: The Secretary being absent, Wm. A. Ball was appointed Secretary *pro tem.* by the President.

Minutes of last meeting read and approved. A paper by Mr. H. L. Smedley, of Media, Pa., was read. Subject, "The Apothecary's Apprentice of To-day," and referred to the Publication Committee. See page 32.

Mr. Wallace Procter then spoke at length of the emulsifying properties of Quillaya Saponaria, a tincture made of four ounces of Quillaya to a pint of diluted alcohol possessing a very fine emulsifying power, being used in very small quantities and proportions. Samples were shown of a mixture of Guaiac, which was very nice, and much more pleasant to the taste and easier to make than the officinal mixture of the same substance in the British Pharmacopœia. He used a formulæ of the University Hospital.

There was also shown to the satisfaction of the members its emulsifying properties in regard to chloroform, cod liver oil, castor oil, copaiba, turpentine, etc., the most of which can be made easily, quickly, and of even more than 50 per cent. of oils can be emulsified and mixed with aromatics, etc., etc.

Mr. L. E. Sayre spoke in regard to his offer made at the last meeting in regard to a paper on structural characteristics of drugs, materia medica, &c.

Mr. S. P. Wright presented a large specimen of a woolly acorn, the species of which was not determined.

After a short speech from President Krewson in regard to the state of the Association and the social meetings, and a suggestion by Mr. Sayre to have some one appointed to present the subject to the Junior Class, to try and stimulate them to action and secure their presence at the social meetings.

The meeting adjourned at 5.45 P. M.

WM. A. BALL,

Secretary pro tem.

THE APOTHECARY'S APPRENTICE OF TO-DAY.

An article published in the February number of the *Journal of Pharmacy*, recalling the days when custom demanded the pharmacist to reduce his drugs to powder, prepare blue-mass, mercurial ointment,—and, in fact, perform many duties which to-day are rendered inexpedient, presents to the apprentice of late years the great contrast—and points out many disadvantages with which he would have to contend had he been engaged in the business some fifty years ago.

At the present time the apprentice, with his limited duties, his free access to the latest literature suited to his avocation, and his advantages in general—cannot properly realize the amount of energy, ambition and incessant toil put forth by the apprentice of earlier date to overcome the difficulties which so frequently crowded upon the “old knights of the pestle.”

The saying—“Out of the old we have the new” is certainly verified in no better way than advancement made as shown—how?

I answer thus: “From the labors of such eminent men as Procter—germinated points of instruction which to-day have matured, not only as authority, but have lead to discoveries which add a few more links to the chain of ‘scientific perfection.’”

Embracing knowledge imparted by becoming familiar with valuable text-books on Pharmacy, Materia Medica and Chemistry, (not to speak of other sources of instruction) the apprentice of to-day places himself on a straight road to success, and certainly forms a good foundation upon which to build his future industry.

With pleasure he may look forward. With renewed energy may he apply his efforts to unlock the door of learning's store-house and accumulate for himself the riches of “scientific investigation.”

HARRY L. SMEDLEY,
Media, Del. Co., Penna.

NOTICE.

All active members of the Alumni Association of the Philadelphia College of Pharmacy are requested to send their address to the Secretary, so that a correct record can be kept of its members; also, all those who change their address from time to time, are requested to notify the Secretary of such changes, so that they can receive the Annual Reports.

REPORT OF THE COMMITTEE

APPOINTED TO REPRESENT THE

Alumni Association of the Philadelphia College of Pharmacy,
at the meeting of the American Pharmaceutical
Association, held in Indianapolis,
September, 1879.

The Twenty-seventh Annual Meeting was held in the Supreme Court Room, at Indianapolis, Ind., beginning on Tuesday, September 9th, 1879. The members and delegates were welcomed by Mayor John Caven, and his address was responded to by President Gustavus J. Luhn.

The annual address of the retiring President contained a number of valuable suggestions, and its reading was listened to with marked attention. Numerous invitations were received from various public institutions and industrial establishments of the vicinity.

During the remaining meetings a very considerable number of valuable reports and highly interesting scientific papers were read, making this one of the most important meetings so far held.

At the second session, Geo. W. Sloan, of Indiana, a graduate of the Philadelphia College of Pharmacy (Class 1857) was elected President; T. Roberts Baker, of Virginia, first Vice-President; Jos. L. Lemberger, of Pennsylvania, second Vice-President, and Philip C. Candidus, of Alabama, third Vice-President.

A very fine exhibition of chemicals, drugs, pharmaceutical implements, botanical specimens, and of curiosities having a relation to pharmacy, had been arranged in the Masonic Hall, directly opposite the building in which the meetings were being held. This display proved to be very attractive to the members, as well as to the citizens of Indianapolis.

The time not occupied by the meetings was spent in attending the various entertainments and social gatherings, which had been arranged by the Reception Committee, who had most faithfully attended to their arduous duties. The entire meeting passed off harmoniously, proving a source of pleasure and profit to all who attended it.

Saratoga Springs, N. Y., was selected as the place for the next meeting of the American Pharmaceutical Association, on the second Tuesday of September, 1880.

ADOLPH W. MILLER,

On behalf of the Committee of the Alumni Association of the Philadelphia College of Pharmacy.

OBITUARIES.

PHILADELPHIA, March 15th, 1880.

To the Officers and Members of the Alumni Association.

GENTLEMEN:—It is always a sad duty of announcing the deaths of our fellow-members, but when those who have been active in promoting the progress of our calling are reported among death's gatherings, it is still more sad. The names of but three have been reported to your Committee, and where no information respecting the decedents was given, your Committee endeavored, but without success, to obtain materials to form such notice as would seem proper.

CHARLES F. BOLTON died in his native city on the 20th of July, 1879, aged 29 years, 4 months and 13 days, of Typhoid Fever. Mr. Bolton was a son of Dr. Chas. Bolton, deceased, and was born in the village of Milestown, Philadelphia, on the 6th of March, 1850. After having received an ordinary school education, he selected Pharmacy as a profession. He served his apprenticeship with his cousin, Joseph P. Bolton; he then engaged himself with Daniel S. Jones, with whom he graduated with high honors, after which he engaged himself with Mr. William McIntyre, and it was whilst with him arrangements were entered into to engage in the drug business with Mr. Edgar C. Gramm, under the firm name of Gramm & Bolton, 4441 Frankford Avenue, where they did a lucrative business. He seemed to enjoy the confidence of all in his business relations, and was highly esteemed by his patrons. He graduated from the Philadelphia College of Pharmacy in 1871, and received the "Gold Medal," offered by this Association, as a reward of merit to the graduate passing the best examination, and receiving the highest vote. His thesis on "Benzoating Ointments Extemporaneously," was published in the *American Journal of Pharmacy*. He connected himself with this Association March, 1871, and was an active member.

SAMUEL TAYLOR JONES, died March 14, 1880, aged 36 years, of Bright's disease, in connection with organic disease of the heart. Mr. Jones was born near Pemberton, Burlington county, New Jersey. At the age of 14

he was apprenticed to his half brother, D. S. Jones, with whom he graduated in 1864. He succeeded Mr. T. S. Weigand in the drug business, at Fifteenth and Race streets, at which place he continued until his death. His intimate friends testify to his straightforward, honorable course in all his transactions. He was an active member of the Association, and took a lively interest in all its proceedings; in its earlier days was a member of the Executive Board for two years, 1868-70. He also took an active interest in church affairs, and was instrumental in establishing the "Emanuel Mission," connected with First Baptist Church, to which he gave his time and means. He also took a lively interest in charitable organizations generally, and it was whilst in the performance of these duties he was taken sick, and which so soon ended his career of usefulness.

F. V. HEYDENREICH died, after an illness of less than a week, at his late residence, No. 224 Schermerhorn street, Brooklyn, N. Y., on Sunday, May 4, 1879, aged 42 years. The deceased was born at Wingen, Alsace, then a province of France, March 15, 1837, and emigrated to this country with his parents in 1851. He was a graduate of the Philadelphia College of Pharmacy, of the Class of 1858, and joined the Alumni Association December 8th, 1865, as an active member. At the time of his death he was the senior partner in the wholesale drug house at No. 30 William street, New York.

The following brief notice appeared in the *Brooklyn Daily Eagle* :

"Possessed of a liberal education, he was a man of more than ordinary literary culture and refinement. Gifted by nature with a most amiable and benevolent disposition, he was greatly esteemed by all who knew him. He was one of the most prominent members of the English Lutheran Church, on State street, this city, to the success of which he had consecrated his best energies and a large share of his means. His great liberality and self-denying labors are not only recognized by the congregation of which he was a member, but are widely known in his denomination.

"At the time of his death, and for several years previous, he was Superintendent of the Sabbath School in his church, in which position he was eminently successful and universally beloved. He was a man of the highest business integrity, of a spotless character, a most devoted Christian, one whose life was lived for others in utter forgetfulness of self.

"He leaves a wife, four sisters and one brother to mourn his untimely death."

CHARLES W. HANCOCK,
JAMES A. PARKER,
CHAS. J. BIDDLE,

Committee.

INTRODUCTORY LECTURE OF THE COURSE OF
1879-80,
IN THE
PHILADELPHIA COLLEGE OF PHARMACY,
DELIVERED OCTOBER 1st, 1879,
BY
SAMUEL P. SADTLER, PH. D.,
Professor of Chemistry.

A branch of study like chemistry, we will find upon examination of its history, must pass through several stages of progress before it reaches that precision of methods which entitles it to rank among the exact sciences.

As chemistry treats of the essential nature and composition of matter, its study began very early in the history of the world's progress. Coming down to us from the ancient Egyptians through the hands of the alchemists and physicians of the middle ages, we find that already in the last century it consisted of a vast number of facts and isolated observations upon mineral and vegetable substances. These observations had been made by all kinds of men, and possessed, of course, very varying value, erroneous and defective results being very closely interwoven with others of lasting value. The science stood then upon foundations shifting and uncertain. This may be said to have been the first stage in its progress. With the beginning of this century, however, the introduction of the analytical balance by Lavoisier and the determination of the atomic weights of most of the elements by Berzelius paved the way for more exact working, and observations had to be submitted to sharp analytical tests before being considered worthy of record. The rapid development of these analytical methods and their application to the study of minerals and drugs soon gave to mineral or inorganic chemistry, at least, a firm foundation. While the science was still purely an empirical one, it had now acquired more claim to be ranked as an exact one. This may be called the second stage in the progress of chemistry. Our knowledge of inorganic chemistry indeed might have been brought to a very high pitch merely by advancing these analytical methods nearer to perfection, and chemistry might have remained an empirical science.

There was, however, another branch of the subject that, undeveloped as yet, required different methods before its study could be made to yield any adequate reward. The application of the simple analytical methods to vegetable and animal substances tells us little of their real character. We find carbon and hydrogen together with oxygen, and perhaps nitrogen, and that is all. Two substances utterly unlike in physical and physiological characters may show on analysis exactly the same percentage composition, and we have no clue as to what constitutes the difference. Other methods have obviously to be used.

If, instead of determining the elemental composition of an organic compound, we endeavor to decompose it gradually by the application of different reagents, or in other words to effect its proximate analysis, we get results of far greater value. Differences which may serve as a basis of classification soon show themselves, and hydrocarbons, alcohols and acids range themselves in groups as the result of such treatment. But there is yet another and perhaps a greater possibility in the case of organic compounds. If we can take them apart gradually, by piece meal as it were, can we not build them up step by step? This process, called synthesis, as distinguished from analysis, has been applied to organic chemistry with the most brilliant results, both for the science and for the world.

We have now reached the third stage in the study of our science. So soon as we gain an insight into the character of an organic body, from the application to it of the methods of proximate analysis, we may predict what may be done with it by the aid of synthesis; what alterations in its structure may be made by the action of other bodies upon it; what complex substances may be built up with the aid of it. We open up, it will be seen, a vast field of possibilities, many of them fraught with the most valuable and far-reaching results. The chemistry of to-day is no longer an empirical science, but we are able to reason from its general laws, and to predict what will be the result under a given set of circumstances.

I propose, this evening, to take this latest and most highly developed branch of the science, organic chemistry, and ask whether it is of value to pharmacists to study its theories and methods of classification, and whether it has a practical side for us.

Before proceeding to our subject, let us ask as a preliminary question, what is organic chemistry? It is the chemistry of carbon compounds, and all the products of vegetable and animal life are carbon compounds. But what are the materials handled by the pharmacist? A very little reflection will tell us that it is just these products of plant and animal life that constitute five-sixths of our *materia medica*, and are the basis of the preparations to be made in pharmacy. Obviously, then, this is the branch of the subject that we should consider, because it embodies the results of what is known about the very things that the pharmacist must work with daily. We would seem to be saying only what the plainest reason dictates when we state that a well-educated pharmacist ought to have not only a thorough acquaintance with the results, but some knowledge of the theories of modern organic chemistry.

Can he follow intelligently the directions of the books for making an oleate unless he knows the difference between a natural fat and a fatty acid? Should he not know that there is more difference between essential and fixed oils than simply the smell? If he proposes merely to compound prescriptions satisfactorily, must he not be acquainted with the general principles of classification of organic compounds, so as not to be led into grievous mistakes? What is a committing of lists of incompatibles but a crude attempt to master just this difficulty? If, however, he is ambitious to do a little manufacturing of pharmaceutical preparations of his own, for profit, is it advisable for him to risk both his money and his professional reputation unless he has a very thorough acquaintance with his article and the best conditions for its manufacture?

We shall most readily prove our point in this case by examining some of the objections made to the study of modern organic chemistry, and seeing how far they are tenable on general grounds and to what degree they apply in the special case of the pharmacist.

It is said that works on organic chemistry are filled with too much theory and speculation—matters which practical men find it difficult to understand, and in which they take no interest. We would say in reply that such is the mass of material collected in this domain of organic chemistry that working theories are absolutely necessary as frame-work upon which to arrange the multitude of facts and observations. Let any of us take up one of the treatises on organic chemistry of, I was going to say, twenty five years ago, but I know works on medical chemistry, now in use, in which the confusion among the organic compounds is something really bewildering to the student. Alcohols, ethers, acids, glucosides, alkaloids, etc., are all enumerated in succession, under the meaningless name of organic principles. It is one of the points of greatest pride for modern organic chemists that order and system has been brought out of this chaos. To do this, however, a set of theories must be accepted for the time. No undue value need be placed upon them, but they are indispensable in their place. We must co ordinate facts as they are observed, and the use of the synthetical methods before alluded to as of such value for organic chemistry presupposes that we have mapped out in theory some line of reactions which we expect will be followed in nature so soon as we supply the conditions. Let me illustrate. A great deal of ridicule has been expended upon the benzol theory of Kekule, which has been called a piece of phantasy without any facts upon which to base itself. Yet this theory, first promulgated in 1867, has been the frame-work upon which the wonderful growth of the coal-tar color industry has taken place. The discoverers of all the anilin, naphthalin and anthracene colors since that date have used it as their working theory, and their results are all in accordance with its teachings. An idea of the extent of this industry may be gathered from the following figures given in a paper read by Mr. W. H. Perkins, an English chemist, himself one of the earliest discoverers of anilin colors. The author places the value of all the coal-tar colors produced in Europe in 1878 at \$15,750,000, divided as follows :

Germany,	-	-	-	-	-	-	-	-	-	\$10,000,000
England,	-	-	-	-	-	-	-	-	-	2,250,000
France,	-	-	-	-	-	-	-	-	-	1,750,000
Switzerland,	-	-	-	-	-	-	-	-	-	1,750,000
Total										\$15,750,000

Germany has at present seventeen coal-tar color works, England has six, France five and Switzerland four; besides which there are three works in Germany and as many in France which manufacture anilin in enormous quantities for the production of the coal-tar colors. Of alizarin the total production is estimated to be 9,500 tons, representing a money value of \$7,225,000. The noteworthy and instructive thing about this whole subject is the fact that these enormous industries, which have sprung into existence since 1856, are entirely the fruit of theoretical researches in organic chemistry, and these researches may, in the future, bear practical fruit even more valuable.

So much may be said on the general question of the importance of organic chemistry and in defence of its present form and methods. Let us now turn to the

second question and ask, Has it any special practical value for pharmacists? We have already called attention to the fact that its very subject matter gives it such an importance, dealing as it does, with the very substances which the pharmacist more especially has to handle. We will, therefore, turn to the history of organic chemistry, and see what it has accomplished that has proved of service to pharmacy, and finally ask whether it promises anything to our science for the future.

First of all, the methods of proximate analysis characteristic of organic chemistry, and so carefully elaborated by her students, have given to pharmacy a large number of her most valuable remedies. From the opium known since before the Christian era, Serturner, in 1816, after an investigation extending over eleven years, isolated morphia, gave to the world one of its most valuable medicines, and, at the same time, proclaimed the existence of vegetable bases or alkaloids. From the Peruvian bark, officinal since 1677, Pelletier and Caventou, in 1823, isolated quinia and cinchonia. Instead of a tincture of gall-nuts modern pharmacy uses the chemically pure tannin. So soon as organic chemistry isolates the active substance of a medicinally valuable plant, be it essential oil, glucoside or alkaloid, she has enabled pharmacy to replace the use of a crude drug by that of a pure substance possessing the same powers in a much more concentrated form. The application of the same methods of analysis are of the greatest value to pharmacy in enabling one to detect adulterations of valuable drugs, and as a means of estimating their commercial value. An excellent illustration of this occurs to me. While the vanilla extract has been used in pharmacy for many years, no reliable method of estimating the percentage of vanilla, its only valuable constituent, existed. Tiemann, in 1874, made artificial vanillin, and wishing to know the value of a definite weight of it, as compared with a corresponding weight of the vanilla beans, sought for a method of estimating the strength of the beans in vanillin. Nothing better was known than a comparison of the flavoring power of extracts from different samples of beans, and as few persons agree exactly in taste this was unreliable to the last degree. After repeated experiments, he devised a method, and was enabled to determine exactly the percentage of vanillin in any sample of the beans.

In the application of her synthetical methods modern organic chemistry has also done the greatest service to pharmacy. Substances which are found in sparing amount in nature, but which are valuable as medicinal remedies, have been investigated, and so soon as their exact chemical nature was understood, organic chemistry has undertaken the task of producing them artificially from other more accessible materials, and, in many cases, with the most gratifying success. The price of a valuable chemical preparation has thus been reduced often a hundred fold, and its use correspondingly widened. From the long list of organic synthesis I may be allowed to select a few examples of substances of practical application in pharmacy.

Thus, all the fatty acids can be made at present artificially. Instead of being dependent upon the valerian-root or dolphin oil for valerianic acid and valerianates, it is prepared by the oxydation of amyl-alcohol.

Lactic and succinic acids are both made synthetically, and their salts are correspondingly more available for general use.

The oil of mustard is now made synthetically from allyl-iodide (a derivative of glycerin) and potassium sulphocyanate. Closely related to this chemically is oil of horseradish root, which was proved by Hofmann to be essentially butyl-sulphocyanate,

and of course can be prepared synthetically.

Oil of *Spiræa ulmaria* is mainly salicylic aldehyde, and can be made by oxidizing salicin.

Oil of cinnamon was proved by Strecker to consist chiefly of cinnamic aldehyde, and is made artificially from storax balsam.

Oil of rue was shown by Gorup-Besanez to be methyl-nonyl ketone, a compound readily built up from its constituents.

Vanillin, the flavoring substance of the vanilla bean, has been made artificially from coniferin, a glucoside contained in the sap of pine-trees, from oil of cloves, from resin of guaiacum, and lastly from carbolic acid itself.

Coumarin, the active substance in tonka beans, has been made artificially from acetic acid and salicylic aldehyde.

Salicylic acid is now made commercially under Kolbe's patent from carbolic acid.

Benzoic acid can be gotten from gum benzoin or made from phthalic acid, a coal-tar product, or from hippuric acid, which is found abundantly in the urine of herbivorous animals. For the sake of those who have prejudices, we may say that the official benzoic acid is prepared solely by the first process.

Indigo-blue has been prepared artificially by Baeyer. As yet the process is hardly simple enough to be made a commercial one, but there is no doubt that it will ultimately be made so.

In the group of alkaloids not so much has been done as yet, but as the incentives are very great, we have every reason to await greater results in the future.

Schiff prepared in 1870, paraconine, an alkaloid, isomeric with true conine, but differing from it in properties.

Caffeine is shown to be the methyl derivation of theobromine and can be prepared from it.

Atropia has been made artificially by Ladenburg by combining tropine and tropic acid, the two decomposition products of the original alkaloids. He is now engaged in the effort to build up synthetically these two simpler compounds, and with all hopes of success. The artificial atropia has the same physiological action upon the eye as that possessed by the natural alkaloid, and appears to be identical with it in every respect.

Chinolin, a product of the treatment of the quinia alkaloids with caustic potash, has been recently prepared synthetically by both Koenigs and Baeyer. The synthesis of cinchonine is now being attempted by several chemists with strong prospects of success.

The most recent synthesis effected, and one of the most interesting and suggestive, is that just effected by Michael in Wurtz's laboratory. He has built up helicin, the oxydation product of salicin, from a derivative of glucose, called aceto chlorhydrose and salicylic acid. As helicin is reducible by nascent hydrogen to salicin, this is equivalent to a synthesis of the glucoside itself. Moreover, the method is a general one, and Michael promises to attempt at once the synthesis of other and more important glucosides.

It will be seen from this imperfect list that much has been accomplished in the past; but what has been done is only an earnest of what we may expect in the future from the rapidly increasing attention now directed to this subject. If in the ten years, from the discovery of artificial alizarin, by Graebe and Liebermann, in 1868, the production of that one substance could grow so that for the year 1878 the product was valued at over seven millions of dollars, what may we not expect, as organic compounds become more fully studied and are better known. Very many of us may live to see morphia and quinia made artificially, and their production so cheapened that their price may be reduced to a fraction of what it is now.

And let me ask, in conclusion, are you, the pharmacists of the coming era, to have no hand in this work? Serturner, the discoverer of morphia; Pelletier and Caventou, the discoverers of quinia, cinchonine, strychnine and veratrine; Runge, the discoverer of carbolic acid, and Soubeiran, the discoverer, simultaneously with Liebig, of chloroform, were all pharmacists. If we turn to the list of former professors in this school, we find names of men who have contributed greatly to the progress of organic chemistry. Many of the most honored names of living workers in this field are those of pharmacists, or those who have had their education in the school of practical pharmacy. Let us hope that in the brilliant future opening before organic chemistry, pharmacists will not fail to do their share of the work and to reap their share of the rewards.

VALEDICTORY ADDRESS

DELIVERED BY

PROF. JOHN M. MAISCH,

*At the Fifty-ninth Annual Commencement of the Philadelphia College of
Pharmacy, March 16th, 1880.*

Your presence here this evening for the purpose of witnessing the formal introduction to the public of 114 young men as GRADUATES IN PHARMACY, indicates that you take more than a mere ephemeral interest in the cause of pharmaceutical education, and that you value the importance of practical training and of scientific knowledge in the members of a vocation, that has branched off from medicine, and occupies itself with the investigation and elaboration of all organic and inorganic substances which are likely to be useful in the preservation of health, or in combatting disease. While it is by no means the sole office of medical science to relieve ailments and restore health, but likewise to PRESERVE health and PREVENT disease; so it is not the sole important office of pharmacy to compound physicians' prescriptions, although perhaps the life, at any rate the speedy restoration to health of the invalid, may depend upon it; it is perhaps of even greater importance that the pharmacist should be able to recognize the quality of the drugs passing through his hands, to ascertain their purity, and to understand the processes, with all their cautions for working them into the most efficient and medicinally active preparations.

The "pharmacy," or as it is better known to the large public, the "drug store," as such, has strange fascinations. People often seem to think, that because the show bottles in the bulk windows are filled with bright colored liquids, because the counter tops are of polished marble and the shop bottles are designated by glistening labels, the proprietor of the establishment has acquired in some mysterious way a full knowledge of drugs, and the art of dispensing innocent and poisonous medicines; and if perchance he be enterprising enough to sell an article of every day use at or, may be, below cost of price, or if he rewards his customers, for every purchase, with some cheap gift, they will not unfrequently regard him as the most accomplished of those who have coupled upon signs and labels the word PHARMACIST with their own names.

Yet it is in pharmacy as in other pursuits; knowledge and skill are only acquired by dint of hard labor and study; cheapness is no criterion of excellence, and habitual gifts do not by any means prove either friendliness, honesty or benevolence. In all ordinary business transactions, people will refuse to deal with him who misrepresents either wilfully or from ignorance; rather than fall into the hands of an ignoramus, a man will pay a large fee to secure the services of a lawyer of acknowledged ability to avoid losses in litigation; in cases of sickness he will consult the best physician accessible for advice, and to obtain his prescription. And should he not also seek the capable and conscientious pharmacist, intrusting to him the compounding of the medicine? In many parts of the United States, any one may open a drug store who has either capital or credit enough for obtaining the requisite stock and fixtures. But, happily for a number of the large cities in various States,

laws have been enacted, not for the purpose of preventing others from embarking in the drug business, but merely with the view of insuring sufficient qualification and knowledge of innocent and poisonous drugs and chemicals in those, who will have to dispense them to the suffering invalids. These laws evidently furnish a certain safeguard to the public, who, in the absence of such a test, would be unable to distinguish between those who may and may not be entrusted with the responsible duties of the pharmacist; and it would seem that every individual was directly interested in seeing these laws faithfully carried out. The certificate of the Pharmacy Board, like the diploma of the College of Pharmacy, must be earned, and is therefore proof of a certain degree of competency, and I trust that the day may not be far distant when either the one or the other must be found in every pharmaceutical establishment throughout the land.

But as in other pursuits, so in pharmacy; competency alone will not and cannot be the only attribute of the good pharmacist. In purchasing articles of food or of ordinary use, the purchaser as a rule, if not an expert, is at least sufficiently acquainted with their quality as to be able to judge of their approximate value. But it is vastly different in pharmacy. Even the skillful physician is, in the large majority of cases, unable to recognize the quality of the drugs, except perhaps from their action or want of action. How much more difficult, nay impossible, must it be for the public to acquire more than the most superficial knowledge of the large number of crude and prepared medicines, which—and more particularly the preparations—are annually increasing rather than decreasing. It is, therefore, but right for the public to expect of, or rather to require the apothecary to be competent of deciding upon all questions relating to the individual characters and chemical nature of the drugs; it is upon HIM the public have to depend, in a measure, for their welfare; it is upon HIM the physician has to rely for faithfully carrying out the orders entrusted to him in the shape of prescriptions.

To aid the young men in acquiring the knowledge requisite for their chosen pursuit, in systematizing their studies, and in leading them upon the high road of experimental inquiry which alone insures mastership in science and in the arts, is the aim of the Colleges of Pharmacy in the United States, and if that aim be continually kept in view, there can be no question but a still brighter future is in store for American pharmacy. Can this requisite pharmaceutical knowledge be acquired outside of the colleges? I am not prepared to answer *NAY* to this question, for history teaches us that the fire of genius cannot be subdued by adversity, but in spite of humble birth, limited education and want of means, will break down all barriers, if coupled with steady perseverance and unwavering patience. John Dalton, the weaver's son, rose to be one of the greatest chemists whose names occupy places of honor upon the long roll of indefatigable investigators. The blacksmith's boy, Michael Faraday, was apprenticed to a book-binder, and gained undying fame in the history of science as one of England's most distinguished chemists and natural philosophers. And in the annals of our country, names enough are recorded which could be cited in illustration of well-earned success over serious obstacles. Among them, perhaps none is brighter than that of the Boston tallow-chandler and soap-boiler's son, who became the eminent philosopher and statesman; who fettered the lightning; and, during the days that tried men's souls, served his country with unflinching fidelity in the most responsible positions; and, although his body rests

now nigh unto a century in one of Philadelphia's cemeteries, neither his name nor his deeds are forgotten ; as far as civilization has gained a foothold, cherished is the name of Benjamin Franklin.

For improving their general knowledge and filling up the defects of earlier training in their chosen line of research, these men had to avail themselves of all resources within their grasp. The fundamental causes for deficient knowledge of children and youth have been almost completely removed by the extension of general education ; and though adverse circumstances may prevent the anxious from drinking at the fountain of information to his heart's content, there is scarcely an excuse for him who does not relish the refreshing stream, and certainly none whatever for him who neglects the opportunities afforded him. Education and experience are the sources of knowledge, and knowledge, it has been truly said, is power. In every vocation, that power may be exercised for good or for evil, and knowledge may be perverted to reprehensible applications. But as well might one war against the use in the arts, of fire, on the ground that it might become one of the most formidable elements of destruction, as object to the most thorough instruction attainable, on the ground that the knowledge gained might be misapplied. On closer scrutiny, it will be found that the higher the intellectual gifts of nature have been developed, a more elevated sense of moral responsibility will prevail, which must redound to the greater benefit of the public, and inspire the individual to the performance of his full duty towards his fellow men.

Pharmacy holds a somewhat peculiar position among the various vocations. It is, on the one hand, a purely mercantile pursuit, inasmuch as a number of drugs are simply sold again in the condition in which they are received. But, as one of the industrial arts, it utilizes crude material received from different sources, and, by subjecting it to more or less elaborate processes, converts it into products which are more available to the physician, and better adapted to the wants and tastes of the patient. It is in the selection of the crude material and in its elaboration into numerous compounds, that pharmacy is based upon several branches of natural science—notably, upon applied botany in the selection of the drugs of vegetable origin, upon applied chemistry in the perfection of the various processes, and upon applied physics in guarding against possible deterioration or decomposition, and in the most correct execution of the processes.

The number of drugs generally employed at the present time is by far smaller than formerly, notwithstanding the occasional revival of long discarded ones, and the new additions made from time to time to the *materia medica*. The galenical preparations which are officially recognized through the pharmacopœias are likewise by far less numerous, and, as a rule, also less bulky and more elegant than in times gone by. The large potions, often nauseating from their bulk as well as through odor and taste, are still vividly recollected by many. But it must not be supposed that in former times pharmacy made no attempt at reducing the bulk of medicines, or at correcting the taste of the nauseous ones ; the numerous extracts, lochochs, preserves, electuaries, troches and allied preparations, which were recognized by the old pharmacopœias and dispensatories, prove that in the direction alluded to, perhaps as much had been accomplished as could be expected from the scientific attainments of those times. One of the most important means of diminishing the bulk of medicines was first pointed out little more than sixty years ago, by the

discovery of the first vegetable alkaloid in opium, which was followed, in rather rapid succession for a time, by the isolation of other alkaloids, and of different proximate principles, representing in a small weight, either partly or entirely, the medical properties of a much larger amount of the drugs. With the elaboration of the physical, chemical and medical properties of the active and inert constituents of drugs, a large field of research was opened, resulting in discarding, to a considerable extent, the employment of the crude drugs, in substituting for them the definite principles, and likewise in decreasing the bulk and improving appearance and taste of most pharmaceutical preparations. Even to the casual observer, it must be evident that medication has been simplified, and, as a necessary consequence, the various preparations of the pharmacist have become more simple, but of greater accuracy, and in many instances the processes had to be considerably changed or even amplified.

In the earliest history of man, the cure of disease was doubtless attempted by means of certain herbs, the efficacy of which had been accidentally ascertained; and where these failed, the disorders were ascribed either to the influence of evil spirits or to witchcraft, a belief which we still meet among the savage tribes of the different continents and islands, and which lingers yet among the illiterate and credulous of the civilized nations, and finds expression in various superstitious practices, and in consulting the pretenders of magic, the conjurers of spirits, the gypsies, healing mediums and others of the same class, professing to cure our ills by supernatural means. Like most conditions connected with the remote period of the history of the human race, the means originally employed for curing disease are involved in doubt and obscurity; but from what is known from the earliest historical times, plants were doubtless first used, and the *materia medica* was subsequently enlarged by resorting also to certain animals and minerals. Hippocrates, who lived in the fifth century before the christian era, enumerated 230 plants, and a hundred years later, about 500 plants were described by Aristotle and Theophrastus. At the present time, over 120,000 species of plants are known, and it is evident from this number, that not only can the professional botanist be not familiar with all the known plants, but it is still less possible for the pharmacist to be acquainted with all the products that may be derived from this vast number, and for the physician to know the effects of this multitude of products, even if it was possible to gather and investigate them separately.

In ancient times, the physician was also the preparer and compounder of remedies. Nearly cotemporary with the dawn of the Christian era, the Latin physician, Aulus Cornelius Celsus, suggested the propriety of severing pharmacy from this intimate connection. It was, however, chiefly through the teachings of Claudius Galenus, who lived in the second century after Christ, that the separation of the two branches of the healing art was inaugurated; his influence upon pharmacy has been so important that, for infusions, decoctions, ointments, plasters and other mixtures, chiefly of vegetable or organic substances, the designation of *galenical preparations* was adopted, and has been retained to the present day.

Numerous additions were made, in the course of time, to articles of *materia medica*, partly through the Arabs and the Spanish-Arabian school of medicine, partly by the alchemists of the middle ages, and by the introduction of chemical compounds as remedial agents, through Paracelsus. The want of exact observation,

and the almost universally prevailing superstition rendered a sifting of the accumulated worthless trash and of the disgusting medicines a matter of impossibility, until by the general progress of medical science and the rapid development of chemistry at the close of the last, and the beginning of the present century, the elimination was begun in earnest. Shakespeare's description of the mediæval apothecary's shop at Mantua is well known :

“I do remember an apothecary, — — —
And in his needy shop a tortoise hung,
An alligator stuffed, and other skins
Of ill-shaped fishes.”

This gives at least a faint idea of the nature of the drugs employed at that time and for several centuries afterwards. The body of man, living and dead, furnished a number of remedies, of which the hair and nails were by no means those causing greatest aversion. Fortunately, however, in a number of diseases, the patient was not required to take them; fevers and gout were cured by cutting the hair and nails small, mixing them with a roasted egg and giving the mixture to birds, or putting it in a hole bored into the body of an oak tree, or of a plum tree. The wasp and the hornet, different beetles, bugs, flies and worms, numerous fishes and birds, the tortoise, squirrel, fox, wolf, dog, and many other animals were employed in preparing medicines, and not unfrequently such parts were selected which are not regarded as the most inviting. Doubtless on account of its costliness, gold was believed to be a kind of universal remedy; “for it restores and preserves the radical humidity, both in quantity and quality entire, renews the natural heat, recreates and revives the spirits and frees the powers of the whole body from the malignity of diseases, keeping it safe from corruption during the term of the natural life.”

Pearls, coral, and such precious stones like the ruby, sapphire, onyx and others, were probably employed for similar reasons; they were either taken in the form of powder or mixed with various vehicles, or recommended to be worn as amulets. The most precious and hardest of all gems, the diamond, was also a remedial agent; but, since it was never given inwardly, its mediæval use is continued to the present time, though not recognized by the pharmacopœia; for it is worn in rings and the like, and “so it is said to take away fears, melancholy, and to strengthen the heart.”

The hundreds of animals formerly employed, have entirely disappeared from the list of curative agents, as at present used, with the exception of the Spanish fly and the cochineal, of two or three animal fats, mostly employed in ointments, and of two secretions which are now rarely prescribed. Precious metals now do not possess any remedial virtues, and the few of their compounds actually used are of well known composition. Corals, pearls and gems are no longer considered as important medicinal articles, and the loadstone and bloodstone have long since been replaced by more definite compounds. Of the thousands of herbs and parts of vegetables, the large majority have been doomed to oblivion, only a small number being now recognized by the pharmacopœia, although the resurrection of some of the discarded ones is occasionally attempted, but rarely with lasting success. The compound galenicals of old, into the composition of which not unfrequently entered from twenty to fifty, or even one hundred different articles, have nearly entirely disappeared; few only—and these considerably simplified in composition—now

enjoy official recognition in the pharmacopœia, and in a number of preparations the compound nature is due merely to the addition of a corrective.

What, then, it might be asked, is the object of the more thorough training of the young apothecary, since the crude drugs are now less numerous and the preparations are more simple in their nature than they formerly have been? The answer to this query is plain to him who understands the extended influence of the exact sciences upon all branches of the industries. Though not an expert physicist, the pharmacist must know and appreciate the physical laws upon which the successful application of the processes in his laboratory depend. Though not an expert chemist, he must be familiar with the reactions of the elements and their compounds, which form a large portion of the remedies now employed. Though not an expert botanist, he must be able to recognize all officinal drugs of vegetable origin, to distinguish them from all others, even when nearly related, and to establish the identity of old as well as new drugs which may be introduced for trial. Of recent years, chemical research has added to the medicaments of recognized value chemical derivatives from other bodies; a number of compounds, hitherto only known as products of vegetable economy, may now be made artificially; and synthesis is endeavoring to produce other still more important ones, as soon as their rational composition may have been unraveled. The search for improvement continually suggests modifications in the adopted processes, and new classes of preparations are occasionally brought forward for replacing others; apparatus are invented for the perfection of processes and for securing greater accuracy in manipulation and results. In all these directions the pharmacist must keep abreast of innovations, whether they be of permanent usefulness or merely of transient importance.

You, gentlemen graduates, have learned to appreciate the value of scientific training for the pursuit of your choice, and your success entitles you to the confidence of the public; but it also imposes upon you serious responsibilities, which you cannot shirk on any account. It is scarcely necessary for me now to remind you, that your intellectual attainments would be worse than useless unless associated with the strictest integrity. The pharmacist or druggist who, for love of gain, stoops to lowering of quality or to misrepresentation, may perhaps cover his dark ways so as not to come in conflict with the law of the land, but he is, notwithstanding, morally guilty of trifling with the health and lives of his fellow men. Pecuniary success is not incompatible with, but it is no criterion of moral worth; your actions and not your earnings, will ultimately determine your position in the estimation of your fellow pharmacists and of the public in general. In striving for this highest reward, perform your duties faithfully. You are familiar with them through your apprenticeship behind the counter, and through your studies in the college; and now upon the threshold of your business career, resolve that not one of the duties devolving upon you shall be left undischarged. To such a resolution, we bid you God speed.

The hour for parting has arrived; the farewell must be spoken; and in fulfilling this duty assigned to me by the Board of Trustees and by my colleagues, permit me, gentlemen graduates, to express to you my appreciation of your earnest desire and labor for professional improvement, which I trust may not end with obtaining the coveted diploma. Your *alma mater* hopes for more; and in bidding you, through me, an affectionate good-bye, desires you to carry to your homes, even though they be in distant States, our fervent wishes for your prosperity, and, above all, for your usefulness as men and as pharmacists.

Commencement Exercises.

The Fifty-ninth Annual Commencement of the Philadelphia College of Pharmacy was held on March 16th, 1880, at the American Academy of Music. This noble building was densely crowded with the friends and relatives of the graduating class, who showed their appreciation and good will on the happy occasion by loading the front of the stage with many offerings of love to their friends, which consisted of boquets and artistic floral designs, and numerous articles of utility, as well as those that perish in the using. The air was heavy with the fragrance of the exotics, and there seemed to be no end to the contributions, as they continued to come long after the exercises commenced. About 8 o'clock, during a march dedicated to the Zeta Phi Fraternity of the College, the graduates filed upon the stage under the leadership of Mr. William C. Bakes, followed by the members of the Faculty, officers, trustees, and the friends of the College.

After quiet had been restored, Prof. J. P. Remington stepped forward and said :

LADIES AND GENTLEMEN:—

We have assembled this evening for the purpose of witnessing the ceremonies connected with the Fifty-ninth Annual Commencement of the Philadelphia College of Pharmacy.

The degree of "Graduate in Pharmacy" will be conferred upon one hundred and fourteen gentlemen from the following States, viz.: California, Indiana, Iowa, Kansas, Mississippi, Missouri, North Carolina, West Virginia, Germany and England, one each; Maryland, Massachusetts and Tennessee, two each; New York and Wisconsin, three each; Delaware, five; Ohio, seven; New Jersey, fourteen, and Pennsylvania sixty-six. Gentlemen will please come forward as their names are called. (See list-page.)

The President, Dillwyn Parrish, conferred the degree of Graduate in Pharmacy (Ph. G.) upon them, who, by virtue of their examination, their approval by the Board of Trustees, and the power conferred upon the College by the Commonwealth, were entitled to its reception.

After the rendition of a number of musical selections, Prof. Remington presented Geo. Havens Colton, of Springfield, Mass., the Procter prize, as follows :

MR. GEO. HAVENS COLTON :—

It gives me pleasure to present to you, on behalf of the Board of Trustees of the Philadelphia College of Pharmacy, the Procter prize of a gold medal. This prize is awarded to the student receiving the highest average, provided that he shall have obtained the grade of very satisfactory in each branch, and shall have written a meritorious thesis. You have complied with all of these conditions, and for the first time in two years, this prize is awarded. That you have earnestly toiled to have attained this high distinction need hardly be said; that you heartily deserve this recognition of distinguished merit, fully expresses our feelings on this subject. One fact connected with your reception of the prize deserves mention, and that is that you are the second gentleman from Massachusetts to win it, and it is a curious coincidence that two Procter prizes will find their way to Springfield, Massachusetts. In passing this medal over to your charge, I feel certain that the precepts instilled into you by your faithful *alma mater* will always be cherished by you as long as memory lasts.

Mr. Colton bowed his acknowledgments.

Then Prof. S. P. Sadtler presented Stephen Liversidge Talbot, of Boston, Mass., a prize of one hundred dollars (\$100) for the best thesis, entitled "Equivalence of Drops," as follows :

MR. TALBOT :—

The Trustees of the Philadelphia College of Pharmacy, recognizing the fact that examinations, however impartially conducted, cannot, under all circumstances, afford an accurate measure of the student's knowledge, have ordained that candidates for the degree of Graduate in Pharmacy should present a thesis embodying the results of some special study or original investigations.

They are much gratified at the number of creditable papers that have been handed in in compliance with this rule. Your thesis seems to have more decided merit than any of the others examined. It is, therefore, with great pleasure that, as the representative of the Board, I present to you a prize of one hundred dollars, which was offered by Mr. Henry C. Lea for the most satisfactory thesis to be offered by a member of the graduating class. In giving you this, I consider that you have already gained much more, perhaps, than the prize itself is worth; you have gained habits of careful and patient investigations of skillful manipulations which will be of great value to you in your future career. We therefore hope confidently to hear creditable things of you in the future, and shall feel proud of you as a graduate of the Philadelphia College of Pharmacy.

Mr. Talbot bowed his acknowledgments.

Prof. Remington announced the following gentlemen as having passed what is termed very satisfactory examination in the order of merit, this being a larger number than ever before, viz.: Geo. H. Colton, of Springfield, Mass.; Samuel W. Gadd, of England; Frank S. Harker, Phila.; Conrad G. Hoell, Camden,

N. J.; Stephen L. Talbot, Boston, Mass.; Charles F. Zeller, Phila.; Geo. M. Beringer, Phila.; John E. Sombart, Boonville, Mo.; Lewis C. Collier, Kenton, Ohio; Robert Gibson, Jr., Wheeling, W. Va.; Thomas M. Galbreath, Dublin, M. D.; Henry E. Peters, Allentown, Pa.; Chas. P. Stout, Florence Heights, N. J.; Geo. H. Ochse, Philadelphia, Pa.; John W. Hoffa, Harrisburg, Pa.; Samuel W. Strunk, Quakertown, Pa.; Mason W. Zimmerman, Philadelphia, Pa.

The following named gentlemen (in alphabetical order) were announced as having written a satisfactory thesis, besides Stephen L. Talbot, the prize-man, with the title of their thesis :

Lewis C. Collier, Ohio,	<i>Prinos Verticillatus.</i>
George H. Colton, Mass.,	<i>Xanthoxylum Carolinianum.</i>
George A. Ferdinand, Iowa,	<i>Citric Acid in Cranberry.</i>
Frank Frisby, Kansas,	<i>Fucus Vesiculosus.</i>
Robert Gibson, Jr., W. Va.,	<i>Cornus Circinata.</i>
Francis E. Harrison, Penna.,	<i>Improved Lozenge Apparatus.</i>
John W. Hoffa, Penna.,	<i>Commercial Extract Krameria.</i>
Lewis H. Holden, Penna.,	<i>Aralia Spinosa.</i>
Wm. C. Holzhauer, Wis.,	<i>Eriodictyon Californicum.</i>
George Latin, Ohio,	<i>Eupatorium Perfoliatum.</i>
John E. McCambridge, Penna.,	<i>Hydrargyri Iodidum Viride.</i>
Louis C. Pettit, Ohio,	<i>Eugenic Acid.</i>
Lewis J. Steltzer, Penna.,	<i>Castanea.</i>
Herman Van Allen, Wis.,	<i>Viburnum Prunifolium.</i>
Chas. F. Zeller, Penna.,	<i>Thalleioquin Test.</i>

Then Prof. J. M. Maisch, Ph. D., delivered the valedictory address, abounding with wholesome advice, and reminding the graduates that to be successful in their chosen profession, they must continue to study; that the responsibilities resting upon them as pharmacists demands, on their part, application and increasing industry. For address, see page 41.

As an evidence of esteem, Mr. Thomas S. Collins, President of the Zeta Phi Society, on behalf of the graduating class, presented to Prof. S. P. Sadtler a silver tea service.

In graceful terms the Professor responded in a few appropriate words of good will, and then bowed his acknowledgments.

After these exercises terminated, the Committee of the Alumni distributed the presents, consisting of flowers, books, umbrellas, canes, vases of wax work and baskets of fruit.

After "Home, Sweet Home" was given by the orchestra, the vast audience dispersed, seemingly well pleased with the evening's entertainment.

ZETA PHI ALPHA.

The Social Society of the Philadelphia College of Pharmacy.

The Zeta Phi Alpha Society held its first annual meeting on March 16th, 1880, at the Philadelphia College of Pharmacy, President Jos. L. Lemberger in the chair.

The President read his annual report (see page —), which was succeeded by that of the Treasurer (see page —), and the reading of the minutes of the Executive Committee by the Secretary *pro tem.*, Wm. W. Moorhead.

After the regular routine of business had been disposed of, a number of graduates were duly initiated into fellowship, and were instructed in the mysteries of the Society and given the word and grip by the President.

The increase in membership has been most gratifying to the officers and Executive Council, whose most sanguine anticipations have been far exceeded, and it is their earnest desire that all the members of the Zeta Phi Alpha will continue to exert their influence in the future as they have during the past year—to increase its Fellowship; and that they will feel it a privilege to aid in fulfilling the second Article of our Constitution, and make the Society “a means of perpetuating the pleasant associations formed during our collegiate course; of reviving old, and cultivating new friendships, and encouraging congeniality among our Fellows.”

The Zeta Phi Alpha is not intended to conflict in any way with the Alumni Association, but rather to aid in reviving and strengthening an interest in our Alma Mater, by bringing her sons together socially, and fostering a kindly feeling for our early associations.

Graduates of the Philadelphia College of Pharmacy are urged to forward their names for Fellowship, and if upon examination they are found to comply with the requirements of the Constitution and By-Laws, they will be duly elected as Fellows of the Society, and receive their certificates of Fellowship.

All applications should be filled in on regular blank form, which can be obtained from any of the Executive Council, and when returned to the Secretary or any member of the Council, must invariably be accompanied with the initiation fee of two dollars (\$2.00), which is the only expense attending membership.

The Zeta Phi Alpha Society will hold a grand reunion triennially, at which there will be a banquet. At these triennial meetings officers will be elected and installed, and other business of importance attended to.

The following officers will serve during the present year :

President.—Joseph L. Lemberger, '54, of Lebanon, Pa.

First Vice-President.—Andrew J. Ditman, '65, of New York.

Second Vice-President.—Howard B. French, '71, Philadelphia, Pa.

Treasurer.—Charles W. Hancock, '57, West Philadelphia.

Secretary.—F. M. Murray, M. D., '76, 145 N. Tenth St., Philadelphia, Pa.

Chaplain.—Rev. J. Bloomfield Whetherill, '57, of Newark, N. J.

Executive Council.—W. W. Moorehead, '69; Albert P. Brown, '62; Wm. A. Ball, '77; Wm. E. Krewson, '69; Thos. H. Potts, '71; Thos. S. Wiegand, '44; Charles J. Biddle, '74; Charles L. Eberle, '59; Wm. McIntyre, '63.

Applicants for membership will please forward the initiation fee (\$2.00), giving *full* name, age, class, degrees taken, and address, all plainly written, to the Secretary of the Zeta Phi Alpha, 145 N. Tenth St., Secretary of the Alumni Association, 1801 N. Eighth St., or to Thos. S. Wiegand, Actuary Philadelphia College of Pharmacy, 145 N. Tenth St., Philadelphia, Pa.

HOWARD B. FRENCH,	} <i>Committee.</i>
THOS. H. POTTS,	
ALBERT P. BROWN.	

Extracts from the Report of the President of the Zeta Phi Alpha.

PHILADELPHIA, PA., March 16th, 1880.

Co-Officers and Fellows of the Zeta Phi Alpha of the Philadelphia College of Pharmacy :

DEAR FELLOWS—

Our first year closes and the second opens with our assembling to-day. It becomes the pleasant duty of your President to render some account of the doings of the past year, make a survey of work done, as well as to offer some suggestions with the light of past experience as to the work for coming years.

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The President congratulates the membership on having a very efficient Executive Council, whose beaver-like assiduity has gained for us the record we present for the past year. Whilst we have so efficient a board we ought not to lose sight of the fact that to increase our numbers most effectually

each individual member of this Chapter should feel it a privilege to propose others for membership. * * * *

In perusing the minute-book of our worthy Secretary we find a lapse in the minutes covering the most interesting occasion of March 11th, 1879, and we suggest that it be filled in writing. Our first enjoyable meeting after the presentation of the "Robert Bridge scholarship," so closely associated with our origin, deserves a written page to designate the very beginning of our actual existence, when the officers were installed and the work commenced, which work will continue, we trust, so long as men shall be graduated from colleges of Pharmacy.

An effort should be made to gain all the active Alumni of our College. * * * *

I am impressed with the thought that it will go far to prove our sincerity in the position assumed, that the permanent organization of our Chapter shall in "no wise interfere with or detract from the Alumni Association, but rather strengthen it." It is well, as we grow older, to have in mind that we mean to live, and upon us Fellows may rest the responsibility of beginning our life as an organization aright, that those who follow us may safely tread in the footprints we make in our march with time.

We have organized on what we hope is a permanent basis. Let us work together in good fellowship to that end. * * * *

Respectfully submitted.

JOS. L. LEMBERGER,

President Zeta Phi Alpha.

Report of Treasurer of the Zeta Phi Alpha.

PHILADELPHIA, March 16th, 1880.

To the Officers and Fellows of the Zeta Phi Alpha :

GENTLEMEN—

Agreeably to the requirements of the By-Laws, I herewith present my first annual report of the transactions of this office for the past year. All bills of which I have any knowledge, have been paid, and there is a balance in the treasury of sixteen dollars and thirty-five cents (\$16.35). It is sincerely hoped that as the form of application for membership has been adopted and printed, that members will avail themselves by procuring the blank petitions, and endeavor with renewed interest to increase the membership, and by so doing, also increase the funds in the treasury.

Your Treasurer desires to express his obligations to the members generally for their uniform courtesy, and especially to the officers, for their assistance and kindness.

Statement of the receipts and disbursements of the Zeta Phi Alpha for the year ending March 16th, 1880:

RECEIPTS.

March 11th, 1879—	To Fees and Donations for Membership,	. . \$	298	15
	“ Postage Donated by Ex. Committee,	. .	10	57
April 17th, “	“ Fees for Membership,	. . . .	10	00
May 17th, “	“ “ “ “ “ “	. . . .	2	00
June 18th, “	“ “ “ “ “ “	. . . . (Bal.)	1	00
Sept. 4th, “	“ “ “ “ “ “	. . . .	2	00
Oct. 16th, “	“ “ “ “ “ “	. . . .	2	00
March 4, 1880, “	“ “ “ “ “ “	. . . .	6	00
				\$331 72

DISBURSEMENTS.

March 11th, 1879—	By Cash for Postage to Ex. Committee,	. \$	14	53
“ “ “ “	to W. A. Potter, for Refreshments,	. . . .	115	50
“ “ “ “	to G. Walker, for Flowers,	. . . .	12	00
“ 17th, “	to W. H. Hoskins, Printing,	. . . .	24	95
“ “ “ “	to Craig, Finley & Co., Printing,	. . . .	14	24
“ “ “ “	to G. Bastert, Music,	. . . .	16	00
“ “ “ “	to J. B. Lippincott & Co., Blank Book,	. . . .	2	00
June 11th, “	to Lehman & Bolton, Certificates,	. . . .	75	00
“ “ “ “	to Electrotpe Plate,	. . . .	1	80
“ 18th, “	to C. A. Dixon, Printing,	. . . .	1	50
“ “ “ “	to J. B. Lippincott, Stationery,	. . . .	3	84
June 18th, “	to Jas. Page, Cash Box,	. . . .	2	25
“ “ “ “	to Secretary <i>pro tem.</i> , Postage,	. . . .	1	16
Sept. 4th, “	to C. A. Bush, Filling Certificate,	. . . .	16	35
“ “ “ “	to H. B. French, Box for Certificate,	. . . .	1	25
“ “ “ “	to Mr. Cook, for attending door at Supper in March,	. . . .	1	00
Oct. 15th, “	to F. M. Murray, Secretary, Postage,	. . . .	5	50
March 4th, 1880, “	to I. D. Ware, Printing Petition Blanks,	. . . .	4	00
“ 16th, “	“ “ Postals and Printing,	. . . .	2	50
“ “ “ “	Balance of cash on hand,	. . . .	16	35
				\$331 72

All of which is respectfully submitted.

CHARLES W. HANCOCK, *Treasurer.*

Audited and found correct,

EDWARD C. JONES,
GEO. W. KENNEDY,
ALBERT P. BROWN, } *Committee.*

GRADUATING CLASS,

FIFTY-NINTH SESSION

Philadelphia College of Pharmacy.

NAME.	STATE.	SUBJECT OF THESIS.
AGTHE, JOHN FREDERICK OSCAR.....	North Carolina.....	<i>Preparation of Phosphorus Pills.</i>
BALLANTINE, CHARLES HAMILTON.....	Pennsylvania.....	<i>Unguentum Hydrargyri Nitratis.</i>
BARRINGTON, RICHARD CALCOTT.....	New Jersey.....	<i>Phosphorus.</i>
BASSETT, FENWICK HAZLETON.....	New Jersey.....	<i>Lactic Acid and its Compounds.</i>
BEALE, CHARLES.....	Pennsylvania.....	<i>Chloroform.</i>
BELLEVILLE, ALLEN LESLIE.....	Delaware.....	<i>Salicylic Acid.</i>
BENNETT, ALEXANDER ELWELL.....	New Jersey.....	<i>Glycerine.</i>
BERINGER, GEORGE MAHLON.....	Pennsylvania.....	<i>Caffeina.</i>
BIDWELL, EDWIN HUGH.....	New Jersey.....	<i>The Halogens.</i>
BOYSEN, EDWARD GEORGE.....	New York.....	<i>Emulsions.</i>
BOYSEN, LEWIS COLLOREDO.....	New York.....	<i>The Miseries in Pharmacy.</i>
BROOKS, MITCHELL BAXTER.....	Pennsylvania.....	<i>Plasma, its Pharmaceutical Value.</i>
BURDICK, EDWIN RAUGHLEY.....	Delaware.....	<i>Absence of Tannic Acid in Living</i>
CARL, CHARLES BLAIR.....	Pennsylvania.....	<i>Tincture of Kino.</i> [Plants.
CARSLAKE, WILLIAM HENRY.....	New Jersey.....	<i>Cerasus Serotina.</i>
CLARK, HARRY SCOTT.....	Pennsylvania.....	<i>Pharmacist's Study of Vegetation.</i>
COLLIER, LEWIS CLAY.....	Ohio.....	<i>Prinos Verticillatus.</i>
COLLINS, THOMAS S.....	New Jersey.....	<i>Chenopodium Anthelminticum.</i>
COLTON, GEORGE HAVENS.....	Massachusetts.....	<i>Xanthoxylum Carolinianum.</i>
DAHIS, GEORGE EMIL.....	Pennsylvania.....	<i>Pills and Pill Coatings.</i>
DANIELS, ADAM CLARION.....	Pennsylvania.....	<i>Glycerine.</i>
DETZER, AUGUST JACOB.....	Indiana.....	<i>Chemical Affinity in Compounding.</i>
DOCKSTADER, WILLIAM CROSSETT.....	Delaware.....	<i>Anamirta Cocculus.</i> [Medicine.
DRUEDING, FRANK FREDERICK.....	Germany.....	<i>Syrupus Ferri Iodidi.</i>
ELKINS, CHARLES WILLIAM.....	Pennsylvania.....	<i>Aralia Spinosa.</i>
EVANS, GEORGE BRYAN.....	Pennsylvania.....	<i>Physostigma.</i>
FAMOUS, PARKER HOOVEN.....	Pennsylvania.....	<i>Euonymus Atropurpureus.</i>
FERDINAND, GEORGE ADAM.....	Iowa.....	<i>Citric Acid in Cranberry.</i>
FISHER, GEORGE WASHINGTON.....	Pennsylvania.....	<i>Syrupus Ferri Iodidi.</i>
FREEMAN, OLIVER JOHN.....	Pennsylvania.....	<i>Zinc.</i>
FRISBY, FRANK.....	Kansas.....	<i>Fucus Vesiculosus.</i>
FRUH, GUSTAV ADOLPH.....	Pennsylvania.....	<i>Oil of Wintergreen.</i>
FRY, DANIEL JOSHUA.....	New Jersey.....	<i>Olibanum.</i>
GADD, SAMUEL WESLEY.....	England.....	<i>Syrups and their Preparation.</i>
GALBREATH, THOMAS MULLIN.....	Maryland.....	<i>Emulsions.</i>
GARMAN, FRANKLIN SAMUEL.....	Pennsylvania.....	<i>Powdered Chinoidine.</i>
GIBSON, ROBERT, JR.....	W. Virginia.....	<i>Cornus Circinata.</i>
HALLOWELL, JAMES ALEX. DAVIS.....	California.....	<i>Fermentation.</i>
HARKER, FRANK SCOTT.....	Pennsylvania.....	<i>Aquæ Purificatio.</i>
HARRISON, FRANCIS E.....	Pennsylvania.....	<i>Improved Lozenge Apparatus.</i>
HARTZELL, ALFRED KERR.....	Pennsylvania.....	<i>Helianthemum Canadense.</i>
HOELL, CONRAD GABRIEL.....	New Jersey.....	<i>Cerates and Ointments.</i>
HOFFA, JOHN WILSON.....	Pennsylvania.....	<i>Commercial Extract Krameria.</i>
HOLDEN, LOUIS HENRY.....	Pennsylvania.....	<i>Aralia Spinosa.</i>
HOLZHAUER, WILLIAM C.....	Wisconsin.....	<i>Eriodictyon Californicum.</i>
JACKSON, GEORGE HENRY.....	Pennsylvania.....	<i>Fermentation.</i>
JACOBY, WILLIAM OSCAR.....	Pennsylvania.....	<i>Eupatorin.</i>
JOST, WASHINGTON WILLIAM.....	Pennsylvania.....	<i>Potygala Senega.</i>
KERN, JAMES PECOR.....	Pennsylvania.....	<i>Eupatorium Perfoliatum.</i>
KERR, STIRLING, JR.....	Pennsylvania.....	<i>Pharmaceutical Manipulation.</i>
KEYS, THOMAS FRANKLIN.....	Pennsylvania.....	<i>Failure of Medicinal Substances.</i>
KILLINGBECK, WILLIAM JOHN.....	New Jersey.....	<i>Gum Arabic.</i>
KLEMET, JOHN.....	Pennsylvania.....	<i>Preservation of Drugs.</i>
KOHLERMAN, JOHN WILLIAM.....	Delaware.....	<i>Fluid Extracts.</i>
LANTZ, WILLIAM HENRY.....	Pennsylvania.....	<i>Aralia Nudicaulis.</i>

NAME.	STATE.	SUBJECT OF THESIS.
LATIN, GEORGE.....	Ohio.....	<i>Eupatorium Perfoliatum.</i>
LAVENSON, ISAAC.....	Pennsylvania.....	<i>Roots and Rhizomes.</i>
LEWIS, ARTHUR EVERETT.....	Pennsylvania	<i>Meconic Acid.</i>
LOOS, FREDERICK. JR.....	Pennsylvania.....	<i>Glycerole of Cinchona.</i>
LUETHE, AMANDUS JULIUS.....	Wisconsin.....	<i>Empiricism.</i>
MCCAMBRIDGE, JOHN EDWARD.....	Pennsylvania.....	<i>Hydrargyri Iodidum Viride.</i>
MCFEETERS, ANDREW JAMES.....	Pennsylvania	<i>Resina Podophylli.</i>
MADISON, JOSEPH SUMMERFIELD.....	Pennsylvania.....	<i>Aristolochia Serpentaria.</i>
MAIER, JOHN.....	Pennsylvania.....	<i>Eupatorium Perfoliatum.</i>
MARSHALL, ALFRED STANGER.....	New Jersey.....	<i>American Druggists.</i>
MILBY, ARTHUR ROBINSON.....	Delaware.....	<i>Glass.</i>
MILLER, WILLIAM LELAND.....	Mississippi.....	<i>Value of the Laboratory.</i>
MILLER WILLIAM MOSES.....	New Jersey.	<i>Eriodictyon Glutinosum.</i>
MURRAY, BERNARD JAMES.....	Pennsylvania	<i>Rubus.</i>
OCHSE, GEORGE HENRY.....	Pennsylvania.....	<i>Liquor Ferri Acetici Ph. Ger.</i>
O'DANIEL, ANDREW ALLISON	Pennsylvania	<i>Elegant Pharmacy.</i>
OGRAM, THOMAS EDWIN.....	Pennsylvania.....	<i>Chrysophanic Acid.</i>
OPDYCKE WILLIAM MAXWELL.....	Pennsylvania.....	<i>The Apothecary.</i>
OWEN, HORACE HILDEBRAND.....	Pennsylvania	<i>Terebinthina.</i>
PAXSON, ORIC HENRY, JR.....	Pennsylvania.....	<i>Aralia Spinosa.</i>
PECHIN, WILLIAM JOSEPH.....	Pennsylvania.....	<i>Pinus Palustris.</i>
PENNYPACKER, NATHAN.....	Pennsylvania.....	<i>Salix Alba.</i>
PETERS, HENRY EUGENE.....	Pennsylvania.....	<i>Eriodictyon Californicu.</i>
PETTIT, LOUIS CLARK.....	Ohio.....	<i>Eugenic Acid.</i>
POLEY, LINNÆUS S.....	Pennsylvania	<i>Xanthoxylum Frazineum.</i>
REYNOLDS, JOHN BREWSTER.....	Pennsylvania.....	<i>Tinctura Opii Deodorata.</i>
ROBERTS, CHARLES HAINES	New Jersey.....	<i>Botany.</i>
ROCHE, EDWARD MANNING, JR.....	Pennsylvania.....	<i>Jaborandi.</i>
ROSS, GEORGE REDSECKER.....	Pennsylvania.....	<i>Sanguinaria Canadensis.</i>
SAALFRANK, CHARLES WILLIAM.....	Pennsylvania.....	<i>Syrupus Rad. Glycyrrhiza.</i>
SCHANDEIN, HARRY.....	Pennsylvania.....	<i>Unguentum Benzoini</i>
SCHIMMINGER, GEORGE WILLIAM.....	Pennsylvania.....	<i>Comptonia Asplenifolia.</i>
SHELLY, JACOB.....	Pennsylvania.....	<i>Fluid Extracts.</i>
SHERK, HARRY HUBER.....	Pennsylvania.....	<i>Polygonum Hydropiper.</i>
SHORT, WILLIAM HUNTLEY.....	Pennsylvania.....	<i>Liquor Magnesii Citratis.</i>
SHULL, SILAS HENRY.....	Ohio.....	<i>Pharmacists and Physicians.</i>
SLOUGH, CHARLES EDWARD.....	Pennsylvania.....	<i>Pharmacal Botany.</i>
SMEDLEY, HARRY LEEDOM	Pennsylvania.....	<i>Asclepias Syriaca.</i>
SMITH, GEORGE FARRAR, JR.....	Tennessee.....	<i>Ointments.</i>
SMITH, WILLIAM HARROLD, JR	Pennsylvania	<i>Glycerine.</i>
SOMBART, JOHN EDWARD.....	Missouri.....	<i>Suppositories.</i>
STELTZER, LEWIS JOSEPH.....	Pennsylvania.....	<i>Castanea.</i>
STOUT, CHARLES PETTIT.....	New Jersey.....	<i>Spigelia Marilandica.</i>
STRUNK, SAMUEL WILLIAM.....	Pennsylvania	<i>The Metric System.</i>
TALBOT, STEPHEN LIVERSIDGE.....	Massachusetts.....	<i>Equivalence of Drops.</i>
THORNLEY, WILLIAM JAMES	Pennsylvania	<i>Oenothera Biennis.</i>
TITCOMB, JOSEPH ALEXANDER.....	Tennessee.....	<i>Pills.</i>
TOPLIS, WILLIAM GEORGE.....	Pennsylvania	<i>Gelatine Lozenges.</i>
VAN ALLEN, HERMAN.....	Wisconsin.....	<i>Viburnum Prunifolium.</i>
WALLACE, WILLIAM SAMPSON.....	Ohio.....	<i>Falsifications</i>
WARNER, FRANK STEPHEN.....	Ohio.....	<i>Digitalis.</i>
WARRINGTON, EDWARD.....	New Jersey.....	<i>Cosmoline and Vaseline.</i>
WEBSTER, GEORGE C.....	Pennsylvania.....	<i>Aristolochia Serpentaria.</i>
WHITE JAMES ADDISON.....	Ohio.....	<i>Hydrastis.</i>
WILLIAMS, GEORGE ELI	New York.....	<i>Absorption of Moisture.</i>
WINEBRENNER, GEORGE BYRON.....	Maryland.....	<i>Coccus Cacti.</i>
YOUNG, PRESTON REUBEN.....	Pennsylvania.....	<i>Adulteration of Beer.</i>
ZELLER, CHARLES FREDERICK.....	Pennsylvania.....	<i>Thalleioquin Test.</i>
ZIMMERMAN, MASON WOODWARD.....	Pennsylvania	<i>Glycyrrhiza Glabra.</i>

California.....	1	New Jersey.	14
Delaware.....	5	New York.....	3
England.....	1	North Carolina	1
Germany	1	Ohio.....	7
Indiana.....	1	Pennsylvania.....	66
Maryland.....	2	Tennessee	2
Iowa.....	1	West Virginia.....	1
Kansas.....	1	Wisconsin	3
Massachusetts	2		
Mississippi.....	1		
Missouri.....	1		
			114

ACTIVE MEMBERS BY RESOLUTION.

The following resolution appeared in the minutes of the First Annual Meeting of the Alumni Association :

“*Resolved*, That all graduates of the Philadelphia College of Pharmacy, previous to 1850, be admitted as members of the Association, and that they be entitled to all the rights and privileges of members.”

The following list of names comprises those who were made active members of the Association by the above resolution :

DECEASED MEMBERS IN ITALICS.

<i>Charles H. Dingee</i> , 1826	Jos. M. Turner, 1836	Alfred B. Taylor, 1844
William Sharp, 1826	John Goodyear, 1837	Thomas Leidy, 1845
Charles McCormick, 1826	William L. Hasbrook, 1837	Joseph A. McMakin, 1845
Alexander Dawson, 1827	Benj. F. Hockley, 1837	William N. Needles, 1845
George D. Coggeshall, 1828	Thos. R. F. Mitchell, 1837	William B. Webb, 1845
<i>John H. Dingee</i> , 1828	Gustavus Ober, 1837	Caleb H. Keeney, 1845
<i>Charles Hathwell</i> , 1828	<i>William Procter, Jr.</i> , 1837	Jacob L. Baker, 1846
John C. Allen, 1829	James Elliot, 1837	John Dickson, 1846
Joseph H. Brooks, 1829	Robert J. Kennedy, 1837	Robert England, 1846
<i>Robeson Moore</i> , 1829	Henry Brooks, 1838	Hiram C. Lee, 1846
Charles E. Pleasant, 1829	Thos. W. Harris, 1838	George W. Patrick, 1846
Franklin R. Smith, 1829	William E. Knight, 1838	Robert M. Patterson, 1846
Joseph Scattergood, 1829	Cladius B. Linn, 1838	Thomas J. Scott, 1846
<i>William R. Fisher</i> , 1829	Robert B. Potts, 1838	Benjamin R. Smith, 1846
Edward Brooks, 1830	Richard Rushton, 1838	Charles F. Støever, 1846
Charles D. Hendry, 1830	D. A. Woodruff, 1838	<i>John A. Whartenby</i> , 1846
Dillwyn Parrish, 1830	<i>Henry W. Worthington</i> , 1838	Peter T. Wright, 1846
<i>Isaac Jones Smith</i> , 1830	Charles W. Simons, 1838	Charles Bullock, 1847
<i>Richard M. Reeve</i> , 1832	Thomas Haines, 1839	James H. Crew, 1847
John Bringham, 1832	Thomas C. Hopkins, 1839	Evan T. Ellis, 1847
Samuel W. Brown, 1833	Walter Shinn, 1839	T. Curtis C. Hughes, 1847
William P. Hansford, 1833	William H. Corie, 1840	Samuel Lenher, 1847
Edward Hopper, 1833	John W. Douglas, 1840	John R. Lewis, 1847
Thos. J. Husband, 1833	Albert S. Letchworth, 1840	G. Graves Louden, 1847
<i>Thos. H. Powers</i> , 1833	Benj. J. Ritter, 1840	Charles S. Rush, 1847
Samuel Simes, 1833	S. Crawford Dawes, 1841	<i>Alfred K. Scholl</i> , 1847
Joseph C. Turnpenny, 1833	Caleb H. Needles, 1841	<i>Alfred Lafayette Taylor</i> , 1847
Watson J. Welding, 1833	Peter Babb, 1842	N. Spencer Thomas, 1847
William B. Chapman, 1834	William G. Baker, 1842	John R. Andrews, 1848
<i>Aug. J. H. Duhamel</i> , 1834	<i>William J. Carter</i> , 1842	Samuel M. Bines, 1848
William Ellis, 1834	<i>Adolph P. Grotjan</i> , 1842	Charles M. Cornell, 1848
Alfred Guillou, 1834	William J. Jenks, 1842	Franklin C. Hill, 1848
<i>Stephen Procter</i> , 1834	<i>Edward Parrish</i> , 1842	James Laws, Jr., 1848
Ambrose Smith, 1834	William H. Schively, 1842	Charles A. Santos, 1848
<i>Samuel Thompson</i> , 1834	L. Turnbull, M. D., 1842	John A. Springer, 1848
John H. Tilghman, 1834	Samuel Wetherell, 1842	Edmund Pollitt, 1848
David Trimble, 1834	Caverly Boyer, 1843	George T. Wiggan, 1848
Joseph Trimble, 1834	Edward Donnelly, 1843	Charles M. Wilkins, 1848
James Cockburn, Jr., 1835	Daniel S. Jones, 1843	<i>Charles H. Bache</i> , 1849
<i>Jonathan Evans, Jr.</i> , 1835	Joshua S. Jones, 1843	Samuel L. Costill, 1849
James Hopkins, 1835	Andrew McKim, 1843	Charles Hartzell, 1849
William R. Kitchen, 1835	Robert C. Brodie, 1844	Samuel Hastings, 1849
Clement J. Lee, 1835	Robert C. Davis, 1844	<i>Wm. W. D. Livermore</i> , 1849
Isaac J. Martin, 1835	Thomas Eastlack, 1844	T. Morris Perot, 1849
A. J. Olmstead, 1835	George H. Mitchell, 1844	Isaac W. Stokes, 1849
Richard Price, 1835	Wm. St. Clair Nichols, 1844	Avery Tobey, 1849
Charles S. Shreve, 1835	<i>Silas H. Wentz</i> , 1844	Edmund A. Crenshaw, 1849
<i>Henry C. Blair</i> , 1836	Thomas S. Wiegand, 1844	Oscar Steele, 1849
John W. Simes, Jr., 1836	Jacob L. Smith, 1844	

Total, 146.

List of Active Members

OF THE ALUMNI ASSOCIATION,

Of the Philadelphia College of Pharmacy.

Abernethy, J. M.,	1861	Brodie, R. C.,	1844	Elliot, F. G.,	1868
Acker, Louis K.,	1874	Bronson, E. C.,	1868	Ellis, Wardle,	1871
Addington, W. B.,	1872	Brown, A. P.,	1862	Emanuel, L.,	1876
Addis, S. D.,	1873	Brown, Frederick,	1861	England, Howard,	1868
Albright, F. P.,	1878	<i>Brown, F. P.,</i>	<i>1875</i>	Erwin, B. S.,	1867
Allaire, Chas. B.,	1867	Brown, S. A.,	1867	Estlack, H. W.,	1868
Allen, James A.,	1874	Brunner, N. I.,	1878	Evans, C. B.,	1872
Allen, Wm. E.,	1866	Bryan, H. N.,	1874	Evans, Wm.,	1856
Alleman, E. A.,	1879	Buckman, J.,	1867	Ewing, W. G.,	1871
<i>Alvarez y ortiz, Miguel,</i>	<i>1873</i>	Bullock, Charles,	1847	Fahnestock, Levi,	1879
Anthony, Joseph,	1871	Bullock, L. M.,	1878	Farr, W. L.,	1868
Antill, Jos. V.,	1873	Bunting, S. S.,	1850	Ferdinand, Geo. A.,	1880
Apple, A. A.,	1873	Burge, I. O.,	1876	<i>Fisher, T.,</i>	<i>1862</i>
Armstrong, J. A.,	1855	Burroughs, S. M.,	1877	Fisher, Henry,	1877
Bakes, W. C.,	1855	Button, C. Edwin,	1878	Fleming, W. F.,	1876
Bakhaus, Edmund,	1874	Camm, H. V.,	1871	Flint, J. H.,	1873
Ball, Wm. A.,	1877	Campbell, Hugh,	1866	Foulke, James,	1868
Bancroft, J. W.,	1855	Campbell, Sam'l,	1857	Foster, Charles,	1877
Banks, W. Baker,	1874	Carberry, P. J. L., (M.D.)	1867	Fox, D. S.,	1863
Bannvart, C. A.,	1855	Carl, Chas. B.,	1880	Fox, P. P.,	1858
Bantly, B.,	1874	Cave, Joseph,	1872	Franklin, T. H.,	1860
<i>Barnitz, F. M.,</i>	<i>1866</i>	Chiles, R. T.,	1873	Frederick, J. H.,	1879
<i>Barr, Thomas H.,</i>	<i>1854</i>	Chiles, Edward		Frisby, Frank,	1880
Bartram, Ernest,	1867	Chipman, E. D.,	1862	French, A. S.,	1873
Bates, L. A.,	1869	Clark, A. B., Jr.,	1868	French, Howard B.,	1871
Baur, Hugo F.,	1876	Clark, L. G.,	1875	Frey, A. G.,	1879
Beale, Chas.,	1880	Clark, Silas B.,	1870	<i>Fritchey, J. G.,</i>	<i>1869</i>
Beck, I. H.,	1873	Colton, Geo. H.,	1880	Fronheiser, J. J.,	1868
Beck, J. W.,	1868	Conlyn, T. A.,	1873	Fry, W. W.,	1876
Beetem, J. S.,	1878	Connally, W. C.,	1870	Fruh, Ernst,	1879
Bell, James S.,	1869	Conner, William,	1875	Fruh, C. D. S.,	1869
Beidler, S. M.,	1875	Conrath, Adam,	1873	Fruh, Gustav A.,	1880
Bibby, W. E.,	1875	Courath, Frank,	1875	Fulton, Jos M.,	1877
Biddle, C. J.,	1874	Cook, J. E.,	1873	Frazer, H. N.,	1872
Bille, George,	1872	Coombe, T. R.,	1859	Garman, F. S.,	1880
Bissell, E. G.,	1877	Corbridge, J. E.,	1868	Gegar, Henry F.,	1859
Boerner, Emil L.,	1876	Costelo, David,	1879	Gegan, J. J.,	1860
Boileau, W. N. K.,	1876	Cotzhausen, L. Von,	1876	Gentsch, D. C.,	1876
Boisnot, H. S.,	1875	Coxey, J. C.,	1877	Gill, W. C.,	1873
Bolton, A. H.,	1872	Creushaw, E. A.,	1849	Gold, Hiram,	1864
<i>Bolton, C. F.,</i>	<i>1871</i>	Croft, S. F.,	1867	Gramm, E. C.,	1871
Bolton, J. P.,	1860	Curran, John P., Jr.,	1879	Griffith, J. C.,	1855
Bond, Monroe. M. D.,	1873	Daniels, Adam C.,	1880	Griggs, A. G.,	1873
Borhek, J. T., Jr.,	1867	Day, W. G.,	1879	Gross, E. Z.,	1873
Boring, E. M.,	1867	<i>Davis, A. R.,</i>	<i>1869</i>	Gross, G. A.,	1865
<i>Bowman, H. K.,</i>	<i>1869</i>	Davis, H. H.,	1869	Groves, J. D., (M. D.),	1876
Bowen, D. A.,	1878	Davis, R. C.,	1844	Gutekunst, F.,	1853
Bower, Henry,	1854	Dawson, E. S., Jr.,	1874	Guth, M. S., (M. D.),*	1873
Boyd, Abraham,	1868	Dawson, J. H.,	1872	Haig, C. R.,	1867
Boyd, C. W.,	1878	Day, R. L.,	1868	Hall, H. A.,	1878
Boyd, J. W.,	1860	Deiker, W.,	1873	Hall, J. J.,	1870
Blair, Andrew,	1865	Diehl, C. L.,	1862	Hambright, G. M.,	1863
Blair, H. C.,	1866	Dilg, P. H.,	1876	Hancock, C. W.,	1857
Bley, A. A. W.,	1876	Dilks, S. L.,	1868	<i>Hannaman, J. B.,</i>	<i>1870</i>
Blinkhorn, George,	1857	Ditman, A. J.,	1865	Harner, J. M.,	1867
Blithe, Henry,	1862	Dodson, C. G.,	1859	Harper, F. M.,	1873
Blomer, A. P.,	1865	Dubois, L. S.,	1873	Harrop, Jos.,	1868
Braddock, W. H.,	1875	Eayre, Mortimer H.,	1868	Hartwig, C. F.,	1875
Bradley, T. F.,	1868	Eberle, C. L.,	1859	Hartzell, Alfred K.,	1880
Brakely, P. F.,	1873	Eberle, H. T.,	1873	Hassinger, S. E. R.,	1870
Brennecke, R.,	1877	Ebert, A. E.,	1864	Hazlett, E. E.,	1874
Bridger, Paul,	1873	Ehler, W. R.,	1870	Hecker, J. K.,	1868
<i>Bringhurst, Ferris,</i>	<i>1857</i>	Eldridge, G. W.,	1863	Helflich, L.,	1870

Heller, Marx M.,	1865	Lemberger, J. L.,	1854	Parrish, Clemmons,	1868
Hendricks, E. G.,	1878	Lereh, W. J.,	1873	Parrish, Dillwyn,	1830
Henry, Geo. S.,	1874	Lescher, G. C.,	1874	Patterson, J. L.,	1875
Heydenreich, E.,	1861	Levi, A. B.,	1879	Paxon, E. D.,	1871
<i>Heydenreich, F. V.,</i>	<i>1858</i>	Leslie, H. W.,	1862	Peat, Edward,	1878
Higate, W. O.,	1878	Lillard, B.,	1868	Peck, H. T.,	1862
Hilton, Thomas C.,	1874	Lindsay, J. B.,	1865	Penrose, S. F.,	1869
{ Himmerwright,		Linthicm, T.,	1876	Pfromm, A.,	1869
{ F. E. (M. D.),	1867	Lippincott, R. C.,	1866	Phelps, F. H.,	1869
Hoell, Conrad G.,	1880	Little, A. H.,	1867	Plumer, W. S., Jr.,	1879
Hohl, A.,	1873	Litz, W. K.,	1878	Poley, W. H.,	1875
Hopp, L. C.,	1875	Lock, J. H.,	1879	Potts, D. G.,	1873
Huber, Milton,	1865	Lukenbach, E. H.,	1870	Potts, T. H.,	1871
Hughes, C. C.,	1857	Luethe, A. J.,	1880	Porter, G. C.,	1878
Huneker, John F.,	1871	Lumb, A. L.,	1874	Power, F. B.,	1874
Husband, T. J., Jr.,	1869	Madison, Joseph S.,	1880	Prall, D. E.,	1878
Hunter, David,	1874	Magill, B. M.,	1873	Preston, David,	1865
Hunter, Thos., (M.D.)	1870	Marshall, R. F.,	1868	Procter, Wallace,	1872
Hurt, J. F.,	1873	Martin, Geo., Jr.,	1877	Raab, E. P.,	1879
Ink, P. B.,	1871	Martin, J. C.,	1876	Radefeld, F.,	1873
Jacoby, A. P.,	1874	Martin, J. A.,	1877	Railey, I.,	1876
<i>Jacobs, G. H.,</i>	<i>1874</i>	Martin, S. W.,	1873	Raser, J. B.,	1871
Jacobs, H. H.,	1862	Martindale, Wm. N.,	1873	Raser, W. H.,	1868
Jacobs, Joe,	1879	Massenburg, T. L.,	1857	Ran, E. A.,	1870
Jefferson, C. L.,	1859	Maston, J. A.,	1875	Reimann, L. P.,	1875
Jefferson, Edward,	1873	Matos, L. A.,	1872	Remington, Jos. P.,	1866
Johnston, Geo. H.,	1874	Mattern, W. K.,	1874	Reynolds, J. J.,	1869
Johnson, John G.,	1878	Matthews, C. C.,	1868	<i>Rhoads, Elam,</i>	<i>1861</i>
Jones, D. A.,	1869	Mattison, R. V., (M.D.)	1873	Rienhamer, Fred.,	1874
Jones, E. B.,	1867	Maulick, W. F.,	1877	Rice, W. C., Jr.,	1868
Jones, E. C.,	1864	McCollin, S. M., (M. D.)	1864	Richards, G. K.,	1859
Jones, H. G.,	1875	McCrea, I. H.,	1873	Riley, C. W.,	1866
Jones, J. M.,	1873	McElhenie, T. D.,	1872	Ritter, E. D.,	1873
Jones, R. D.,	1879	McElroy, J. B.,	1865	Ritter, John,	1876
<i>Jones, S. T.,</i>	<i>1864</i>	McFerren, J. D.,	1876	Rittenhouse, H. N.,	1855
Jordan, H. A.,	1868	McInall, E., Jr.,	1868	Risk, C. H.,	1876
Jummel, F. R.,	1874	McIntyre, Wm.,	1863	Robbins, Alonzo,	1855
Jungman, Emil,	1879	McLaughlin, J. T.,	1870	Roberts, Charles H.,	1880
Jungman, Julius,	1872	McPike, W. C.,	1866	Robertson, H. E.,	1869
Justice, R. S.,	1875	McRoberts, W. B.,	1875	Robinson, J. S.,	1869
Kadish, C. J.,	1871	Meanes, W. B., (M.D.),	1875	Roche, W. F.,	1867
Kannal, E.,	1871	Meller, A.,	1863	Rohrer, E. P.,	1863
Karch, Jos. J.,	1868	Merccin, J. R.,	1857	Ross, D. W.,	1877
Kay, Sam'l D.,	1868	Merklein, C. H. (M.D.)	1869	Ross, George R.,	1880
Keasby, H. G.,	1873	Merritt, J. W.,	1876	Ross, H. H.,	1866
Keenan, A. H.,	1874	Messing, Jacob, Jr.,	1875	Ruan, James,	1863
Keen, Francis,	1865	Meyer, C. C.,	1873	Sayre, L. E.,	1866
Keeney, C. R.,	1845	Milleman, P.,	1866	Schechle, G. P., Jr.,	1877
Keller, A. H.,	1876	Miller, A. W. (M. D.),	1863	Schell, H. D.,	1870
Kelty, Clement,	1869	Miller, C. M.,	1875	Schiedt, J. A.,	1872
Kennedy, G. W.,	1869	Mitchell, C. L. (M. D.),	1872	Schmidt, H.,	1873
Kennedy, Chas. W.,	1855	Mitchell, W. S.,	1875	Schnabel, C.,	1873
Kern, James P.,	1880	Miles, J. J.,	1874	Schimminger, Geo. W.,	1880
Kielhorn, H.,	1873	Mitsch, Geo. J.,	1876	Schroeder, H.,	1856
Kille, Geo. H.,	1873	Mitiae, J. A.,	1866	Schwartz, A.,	1877
Killingbeck, W. J.,	1880	Milneo, J. P.,	1865	Seeger, Roland,	1859
Kingsbury, H.,	1874	Moenkemoeller, C.,	1876	Segrest, L. F.,	1870
Kirkbride, J. C.,	1863	Moore, C. C.,	1867	Selfridge, M. M.,	1852
Kirkbride, J. J.,	1870	Moorhead, W. W.,	1869	Sennett, J.,	1862
Klemet, John,	1880	Moser, A. H.,	1865	Seybert, R. L.,	1868
Klump, C. C.,	1868	Mullen, W. W.,	1862	Shamalia, Geo. M.,	1875
Kohlerman, J. W.,	1880	Murray, F. M. (M. D.),	1876	Sharp, R. C.,	1869
Kneeshaw, W. W.,	1866	Murray, T. C.,	1863	Shaw, J. B.,	1868
Koehler, W. W.,	1877	Musser, O. H.,	1878	Shaw, Louis,	1871
<i>Kolp, C. H.,</i>	<i>1869</i>	Mutehler, H. M.,	1872	Shivers, C., Jr.,	1867
Kramm, G. W., (M. D.)	1876	Naulty, W. H.,	1862	Shoemaker, Allen,	1866
Krewson, Wm. E.,	1869	Needles, C. H.,	1841	Shoemaker, B., Jr.,	1866
Krnell, F. J.,	1874	Newbold, H. A.,	1870	<i>Shoemaker, C.,</i>	<i>1866</i>
Laird, W. R.,	1866	Newbold, T. M.,	1866	Shoemaker, R. M.,	1862
Lamparter, E.,	1869	Newton, J. S.,	1866	Shoffner, J. M.,	1868
Landschutz, P.,	1877	Noss, Henry,	1878	Shropshire, J. B.,	1868
Lange, C. R.,	1873	O'Brian, T. Bryan,	1868	Shrum, John H.,	1872
Latin, George,	1880	Odenwelder, A. J.,	1871	Shryock, Allen,	1868
Latz, F. W.,	1874	Oleson, O. M.,	1877	Shingard, B. F.,	1868
Leary, J. C.,	1855	Orth, Fred. C.,	1865	Shull, D. F.,	1878
Lee, Chas. S.,	1870	Painter, E.,	1866	Sigling, C. J.,	1879
Lee, E. H.,	1871	Parker, F. H.,	1877	Simes, J. H. C.,	1864
Lehman, J. E.,	1871	Parker, J. A.,	1873	Simes, Samuel,	1867

Simes, S. F.,	1868	Taylor, W. S.,	1876	Weiss, Wm.,	1878
Simon, Matthias,	1868	Thieband, C. S.,	1872	Webber, J. L.,	1876
Simpson, W. H.,	1866	Thomas, F. W.,	1868	Webb, S. W.,	1867
Smedley, Harry L.,	1880	Thorn, H. P.,	1875	Weber, Wm.,	1871
Smedley, B. L.,	1862	Tilge, F. A.,	1863	Weber, F. C.,	1871
Smith, A. E.,	1873	Tilton, F. M.,	1874	Weichselbaum, J.,	1867
Smith, A. H.,	1877	Tomassavich, L.,	1870	Wiegand, T. S.,	1844
Smith, H. A.,	1868	Tomlinson, E.,	1863	Weaver, J. A.,	1871
Smith, H. G.,	1879	Toulson, M. A.,	1876	{ Weideman, C. A. (M. D.),	1867
Sniteman, C. C.,	1871	Treichler, L. A.,	1869	Wellcome, H. S.,	1874
Snyder, E. D.,	1871	Trimble, Henry,	1876	Wendel, F.,	1865
Sommer, R. M.,	1876	Troll, C. W.,	1879	Wendel, H. E.,	1865
Souder, J. A.,	1866	Truckenmiller, G. L.,	1873	Wenrich, A. B.,	1870
Stackhouse, G. P.,	1868	Trupp, L.,	1877	White, Hugh,	1876
Steifel, L.,	1868	Turner, C. W.,	1879	White, J. T.,	1865
Stein, J. H.,	1869	Unsicker, C. B.,	1869	Worthington, J. W.,	1871
Shem, W. N.,	1873	Vandegrift, J. P.,	1867	Wood, James P.,	1873
Stewart, R. R.,	1874	Vansant, R. H.,	1879	Wittkamp, H. L., Jr.,	1876
Stewart, A. B.,	1873	Vernon, G. R.,	1871	Witmer, J. A.,	1876
Stifel, Albert F.,	1873	Voelcker, R. F. G.,	1875	Wilhelm, J. A.,	1870
Stoever, J. M.,	1861	Vogelbach, Edmund,	1865	Williams, J. L.,	1874
Stratton, J. A.,	1851	Vogelbach, H. A.,	1860	Willard, R., Jr.,	1873
Strehl, Louis,	1866	Walker, J. T.,	1865	Williamson, J. L.,	1870
Stretch, C. F.,	1870	Walker, T. A.,	1866	Wilson, Wm.,	1868
Strickler, I.,	1878	Walker, S. E.,	1874	Wike, A. D.,	1867
Supple, J. L.,	1870	Ware, S. F.,	1869	Wright, G. S. R.,	1877
Swain, G. M.,	1867	Warner, W. R.,	1856	Wiley, Joseph,	1872
Taylor, Harry B.,	1869	Warrington, C. W.,	1876	Zacharias, I.,	1877
Taylor, J. Y.,	1875	Watson, W. J.,	1853	Zimmerman, G. A.,	1873
Taylor, W. A.,	1876	Weiss, Louis,	1877		

The first Alumni Gold Medal was awarded in 1871, and has been given each year since to the student who has received the highest general average of his class.

The First was presented March 15th, 1871, to Charles F. Bolton, of Frankford, Phila., Pa. Class of 1871.

Second. Presented March 15th, 1872, to Wallace Procter, of Philadelphia, Pa. Class of 1872.

Third. Presented March 18th, 1873, to E. C. Batchelor, of Macon, Miss. Class of 1873.

Fourth. Presented March 10th, 1874, to Edward Seymour Dawson, Jr., of New York. Class of 1874.

Fifth. Presented March 15th, 1875, to Howard Grant Jones, of Philadelphia, Pa. Class of 1875.

Sixth. Presented March 13th, 1876, to Joseph LeRoy Webber, of Springfield, Mass. Class of 1876.

Seventh. Presented March 15th, 1877, to Olaf Martin Oleson, of Fort Dodge, Iowa. Class of 1877.

Eighth. Presented March 13th, 1878, to David Patrick Miller, of Virginia. Class of 1878.

Ninth. Presented March 12th, 1879, to Joseph Brakeley, of New Jersey. Class of 1879.

Tenth. Presented March 15th, 1880, to George Havens Colton, of Springfield, Mass. Class of 1880.

The Procter Medal has been presented to the following :

Joseph LeRoy Webber, of Springfield, Mass. Class of 1876.

Olaf Martin Oleson, of Fort Dodge, Iowa. Class of 1877.

George Havens Colton, of Springfield, Mass. Class of 1880.

